STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 203825

TO: Rip A Lee Location: Remsen 10a24 Wednesday, October 04, 2006 Art Unit: 1713 Phone: 571-272-1104 Serial Number: 10 / 541644	From: Jan Delaval Location: EIC 1700 Remsen 4a30 Phone: 571-272-2504 jan.delaval@uspto.gov

Search Notes

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.

OCT 4 RECD

Access DB# 203825

SEARCH REQUEST FORM

Pat. & T.M Office **Scientific and Technical Information Center**

Requester's Full Name: Lee, Rip A. Examiner #: 78680 Date: October 04, 2006
Art Unit: 1713 Phone Number 2-7104 Serial Number: 10/541,644
Mail Box and Bldg/Room Location: REM 10 A24 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Group 3 Bridged Metallocene

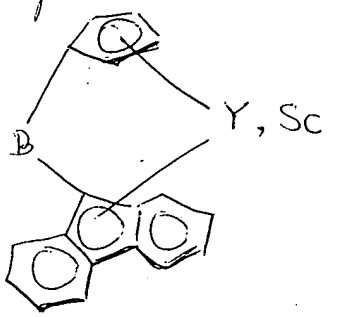
Inventors (please provide full names): CARPENTIER, J-F ARAUJ, A
KIRILLOV, E

Earliest Priority Filing Date: 1

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for yttrium or scandium metallocenes with following structure

cyclopentadienyl



fluorenyl

B is bridging unit Me-Si, Me-Si, Me-C, CH2 CH2

****

STAFF USE ONLY

Searcher: Ann
Searcher Phone #: 82504
Searcher Location:
Date Searcher Picked Up: 10/4/06
Date Completed: 10/4/06
Searcher Prep & Review Time:
Clerical Prep Time: 20
Online Time: +45

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) ✓
Bibliographic
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN ✓
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

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FILE 'REGISTRY' ENTERED AT 15:15:03 ON 04 OCT 2006
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    3 OCT 2006  HIGHEST RN 909488-17-1
DICTIONARY FILE UPDATES:   3 OCT 2006  HIGHEST RN 909488-17-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

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L27              STR
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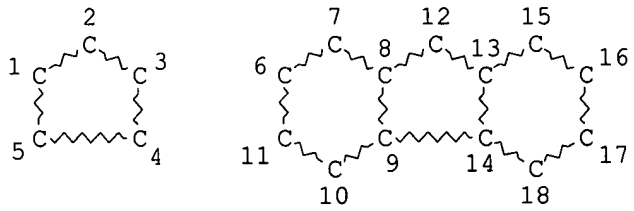


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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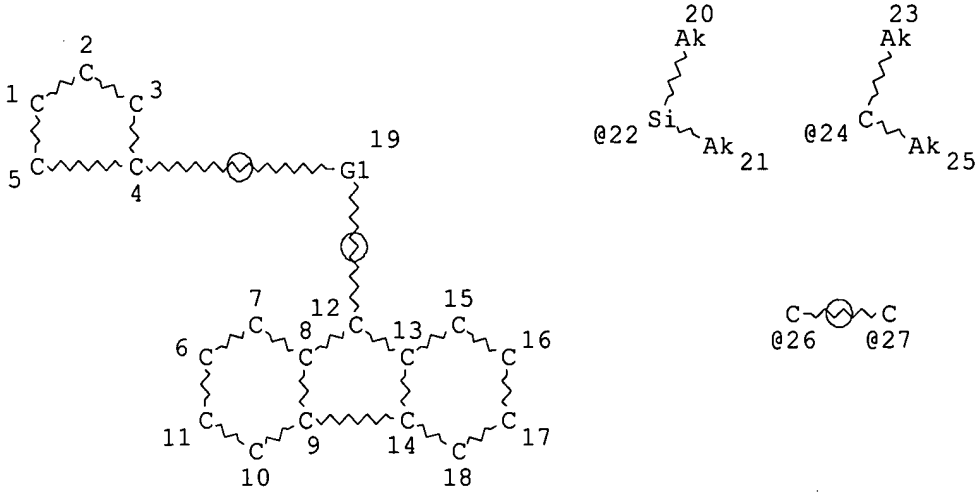

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L26 1459387 SEA FILE=REGISTRY ABB=ON PLU=ON L25 OR ((Y OR SC OR LA OR ND OR SM)/ELS OR (?YTRIUM? OR ?LANTHANUM? OR ?NEODYMIUM? OR ?SAMARIUM? OR ?SCANDIUM?)/CNS)
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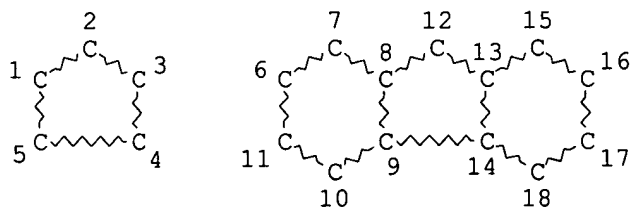

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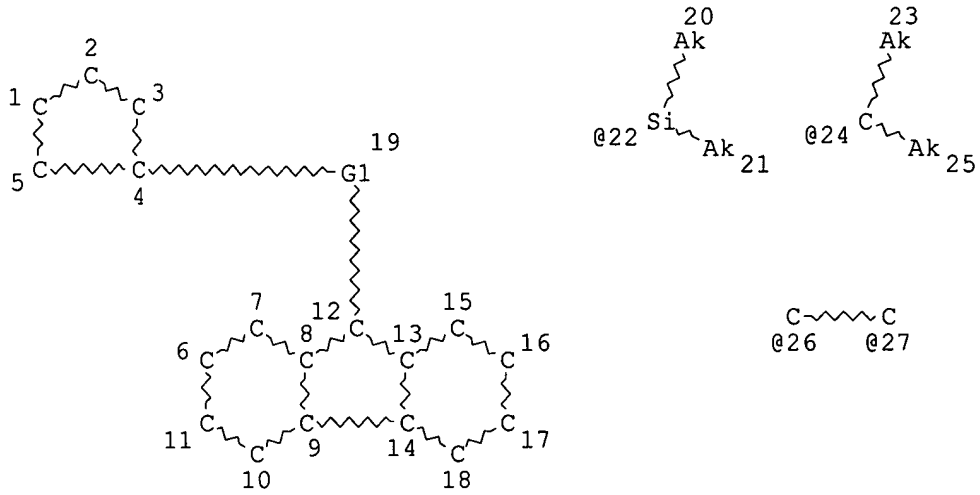

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STEREO ATTRIBUTES: NONE
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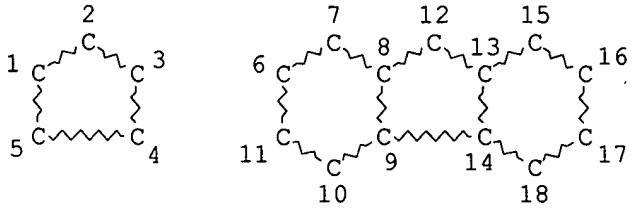
L27 STR



NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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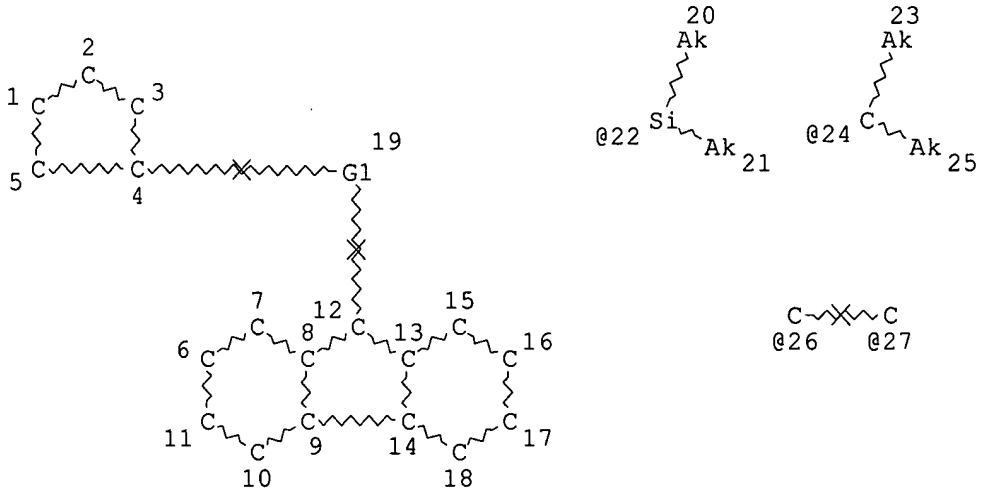

VAR G1=22/24/26-4 27-12
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CONNECT IS E1 RC AT 20
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CONNECT IS E1 RC AT 23
CONNECT IS E1 RC AT 25
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
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SEARCH TIME: 00.00.01

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L2             2 S E3
               E CARPENTIER J/AU
L3           128 S E3,E4,E11
               E KIRILLOV/AU
               E KIRILLOV E/AU
L4           152 S E3-E23
               E RAZAVI/AU
L5           130 S E4-E7
               E FINA/PA,CS
L6          1045 S E3,E4
               E ATOFINA/PA,CS
L7           845 S E3,E4
               E GROUP III/CW,CT
L8        976263 S E40+OLD,NT OR E45+OLD,NT
L9        556594 S E128+OLD,NT
L10       264688 S E144+OLD,NT OR E142+OLD,NT
L11        18751 S (GROUP IIIA? OR GROUP IIIB?)/CT
L12          354 S L1-L7 AND L8-L11
L13           54 S L12 AND ?CYCLOPENT? AND ?FLUOREN?
L14          130 S L12 AND ?METALLOCEN?
L15            8 S L13,L14 AND (?YTTRIUM? OR ?LANTHANUM? OR ?NEODYMIUM? OR ?SAMA
L16           48 S L12 AND ORGANOMET?/SC,SX
L17           13 S L16 AND (?YTTRIUM? OR ?LANTHANUM? OR ?NEODYMIUM? OR ?SAMARIUM
L18           14 S L15,L17
L19           14 S L1,L18
               SEL RN

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L22           45 S L21 AND (?YTTRIUM? OR ?LANTHANUM? OR ?NEODYMIUM? OR ?SAMARIUM
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L23           45 S L21 AND (Y OR SC OR LA OR ND OR SM)/ELS
L24           45 S L22,L23
L25      1402823 S E6 OR E15 OR E25
L26      1459387 S L25 OR ((Y OR SC OR LA OR ND OR SM)/ELS OR (?YTTRIUM? OR ?LAN
L27             STR
L28           50 S L27 SAM SUB=L26
L29         2794 S L27 FUL SUB=L26
               SAV L29 LEE541/A
L30             STR L27
L31           50 S L30 SAM SUB=L29
L32          919 S L30 FUL SUB=L29
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L33           80 S L32 AND Y/ELS
L34           77 S L32 AND SC/ELS
L35           63 S L32 AND LA/ELS
L36           11 S L32 AND ND/ELS
L37           17 S L32 AND SM/ELS
L38          119 S L33-L37 NOT (AYS OR TIS)/CI
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L40          56 S L39 NOT (C82 OR C80)
L41          34 S L20 AND L29
L42          17 S L41 AND (Y OR SC)/ELS
                SEL RN 2 3 6 7 11 12
L43          11 S L42 NOT E1-E6
L44          30 S L40 AND (Y OR SC)/ELS
L45          19 S L44 NOT L42
                SEL RN 9 11-15
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L47          24 S L43,L46
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L51           5 S L50 AND (Y OR SC)/ELS
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L53         947 S L52 FUL SUB=L29
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L56           2 S L55 NOT L42,L44,L51
L57          11 S L43,L51 AND L55
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L61          47 S L58,L60
                SAV L61 LEE541D/A

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L70          16 S L67,L69
L71           4 S L63 NOT L70

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FILE COVERS 1907 - 4 Oct 2006 VOL 145 ISS 15
FILE LAST UPDATED: 3 Oct 2006 (20061003/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l70 bib abs hitstr retable tot

L70 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:140001 HCAPLUS
DN 142:219710
TI Catalytic system for obtaining copolymers of conjugated diene(s) and monoolefin(s) copolymers and these copolymers
IN Boisson, Christophe; Monteil, Vincent; Spitz, Roger
PA Societe de Technologie Michelin, Fr.; Michelin Recherche et Technique Sa; **Atofina**
SO Fr. Demande, 47 pp.
CODEN: FRXXBL
DT **Patent**
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2858817	A1	20050218	FR 2003-9930	20030813 <--
	FR 2858817	B1	20060203		
	WO 2005028526	A1	20050331	WO 2004-EP8336	20040726 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1656400	A1	20060517	EP 2004-763491	20040726 <--
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	CN 1835978	A	20060920	CN 2004-80023077	20040726 <--
	US 2006160969	A1	20060720	US 2006-350754	20060210 <--
PRAI	FR 2003-9930	A	20030813 <--		
	WO 2004-EP8336	W	20040726		

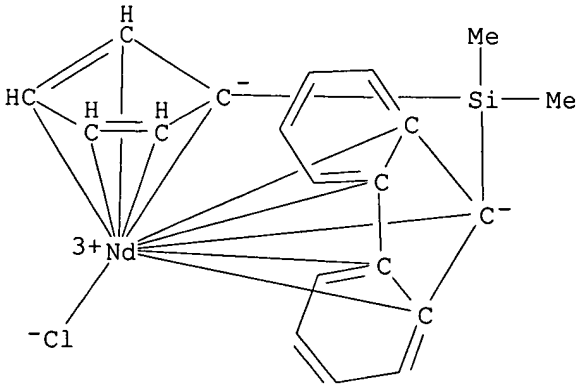
OS MARPAT 142:219710
AB The catalytic system for the title use comprises: (i) [P(Cp)(F1)Ln(X)(Lx)] (I) where Ln represents a lanthanide atom to which a mol. of ligand is connected including groups cyclopentadienyl (Cp) and fluorenyl (F1) connected to each other by a bridge P of formula: MR1R2, where M is an element of Group IVA and where R1 and R2, identical or different, represent each alkyl group having from 1 to 20 atoms of carbon or cycloalkyl groups or aryl groups having from 6 to 20 carbon atoms, where X represents an atom of halogen which can be chlorine, the fluorine, bromine or iodine, where L includes groups such as an ether, and possibly a mol. appreciably less chelating, such as toluene, where p is ≥1 and x ≥ 0, and (ii) a cocatalyst selected from alkylmagnesium, alkyllithium, alkylaluminium, Grignard reactants or their mixts. The

polymers prepared using these catalyst systems have mol. weight >30,000, diene unit content >40 mol%, and C3-18 olefin unit content ≥10%. A typical I was manufactured by reaction of Me2SiC5H5C13H9 with BuLi in THF and complexation of the intermediate with NdCl3 in THF.

IT **839680-86-3P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(catalysts based on Group IVA element-bridged fluorenylcyclopentadienyllanthanide complexes for obtaining copolymers of conjugated diene(s) and C3-18 α-olefin(s) copolymers)

RN 839680-86-3 HCAPLUS

CN Neodymium, chloro[η10-2,4-cyclopentadien-1-ylidene(dimethylsilylene)-9H-fluoren-9-ylidene]- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Boisson, C	2003			US 6569799 B1	HCAPLUS
Mitsui Chemicals Inc	1999			EP 0891993 A	HCAPLUS
Wilson, J	2002			US 6348555 B1	HCAPLUS

L70 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:738468 HCAPLUS

DN 141:243979

TI Catalytic components with constrained geometry comprising a fluorenyl ligand and based on Group IIIB metals

IN **Razavi, Abbas; Carpentier, Jean Francois; Kirillov, Evgueni**

PA **Atofina** Research, Belg.; Centre National De La Recherche Scientifique CNRS

SO Fr. Demande, 25 pp.
CODEN: FRXXBL

DT **Patent**

LA French

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 2852015	A1	20040910	FR 2003-2832	20030307 <--
WO 2004078795	A2	20040916	WO 2004-EP2378	20040304 <--
WO 2004078795	A3	20041202		

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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
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MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1601702 A2 20051207 EP 2004-717105 20040304 <--
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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
CN 1756772 A 20060405 CN 2004-80005825 20040304 <--
JP 2006519902 T2 20060831 JP 2006-504593 20040304 <--
PRAI FR 2003-2832 A 20030307 <--
WO 2004-EP2378 W 20040304

AB Metallocene complexes of Group IIIB metals having a fluorenyl ligand bonded to a hydrocarbyl-substituted Si which is, in turn, bonded to a (substituted) N so as to constrain the geometry of the fluorenyl ligand are useful for catalysts in controlled polymerization of polar or nonpolar monomers. A typical catalyst was manufactured by stirring a suspension of 1.73 mmol 338 mg YCl3 in THF 2 h with 5.2 mmol LiCH2SiMe3 in pentane at 0°, removing residual LiCl, adding 1.42 mmol 3,6-di-tert-butyl-9-(tert-butyldimethylsilyl)fluorene in pentane at 0°, warming to room temperature, and stirring 30 h.

IT **624739-65-7P 624739-67-9P 624739-71-5P**
752997-00-5P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(catalysts with constrained geometry comprising fluorenyl ligands and based on Group IIIB metals for polymerization of polar and nonpolar monomers)

RN 624739-65-7 HCAPLUS

CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, bis[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]yttrate(1-) (9CI) (CA INDEX NAME)

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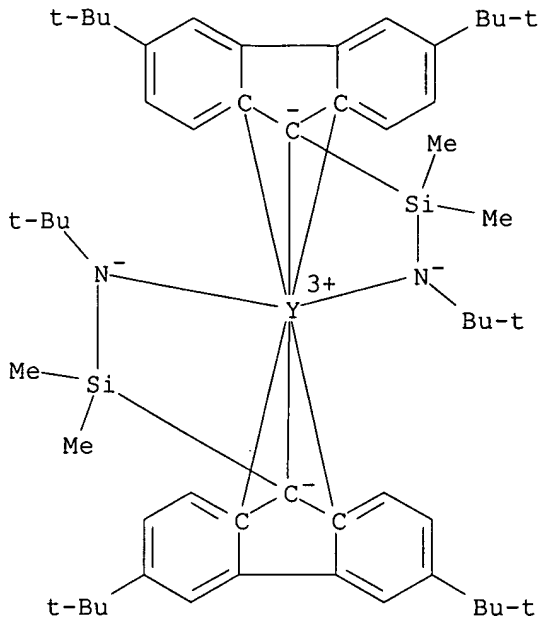
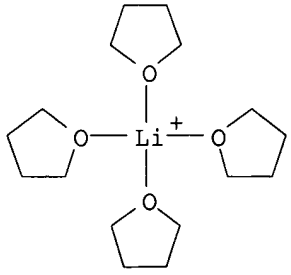
CRN 624739-64-6
CMF C54 H78 N2 Si2 Y
CCI CCS



CM 2

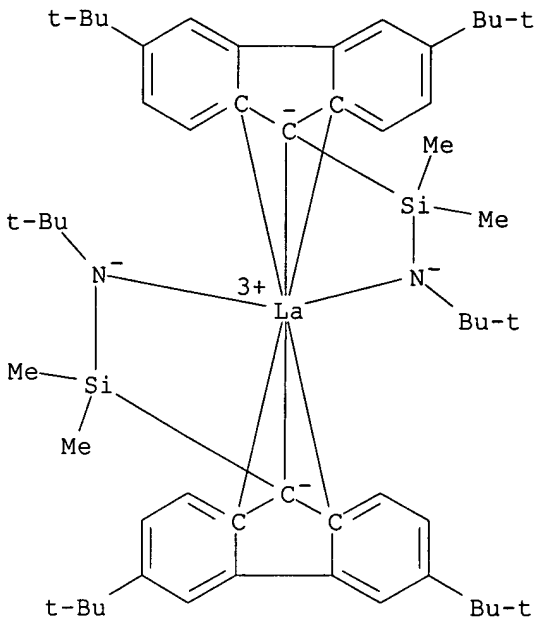
CRN 48186-27-2
CMF C16 H32 Li O4
CCI CCS



RN 624739-67-9 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, bis[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]lanthanate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 624739-66-8
CMF C54 H78 La N2 Si2
CCI CCS



CM 2

CRN 48186-27-2
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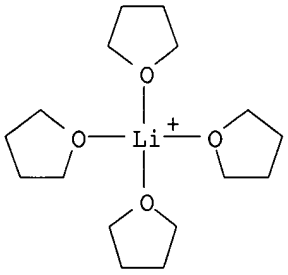
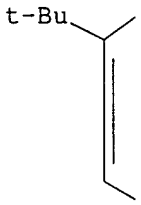


RN 624739-71-5 HCAPLUS
CN Neodymium, bis[1-[(4a,4b,8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]di-μ-chlorobis(tetrahydrofuran)di-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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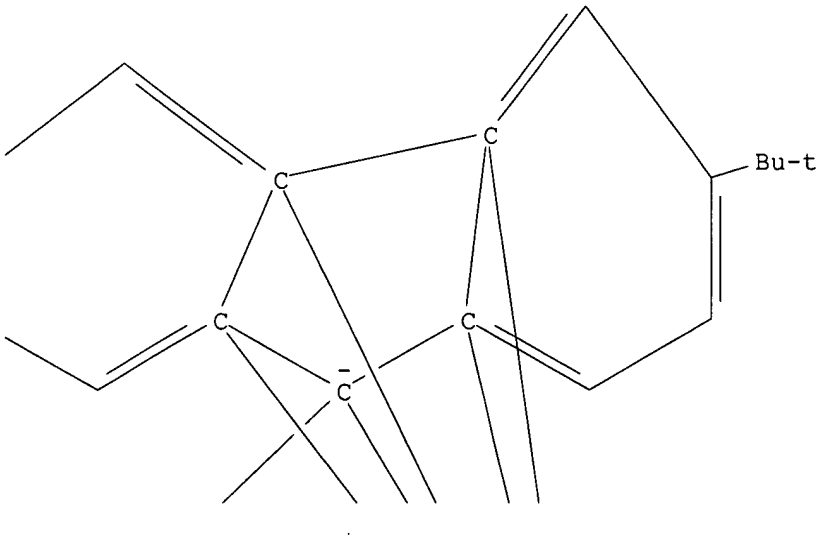
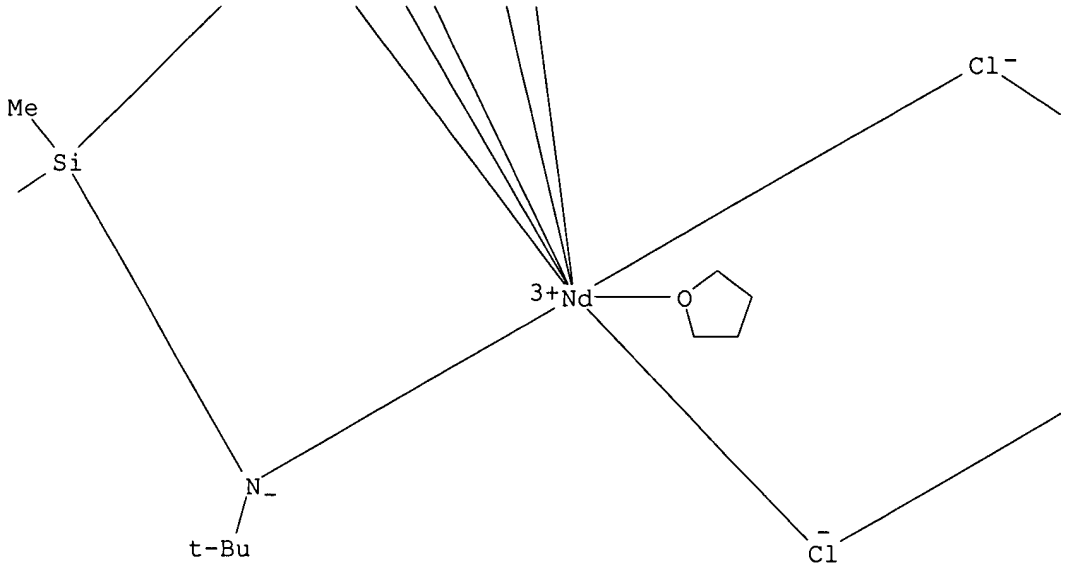


PAGE 2-A

Me

PAGE 2-B



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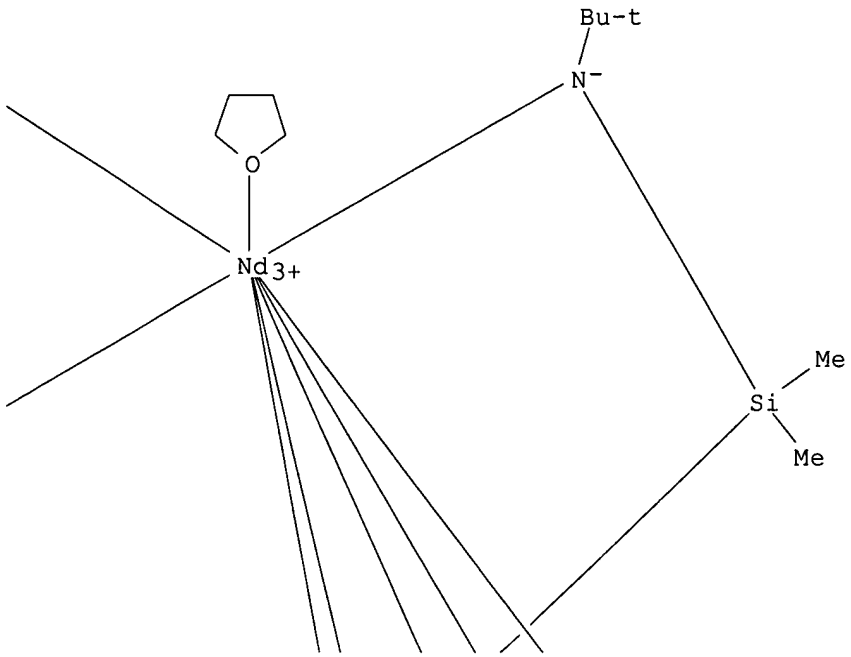
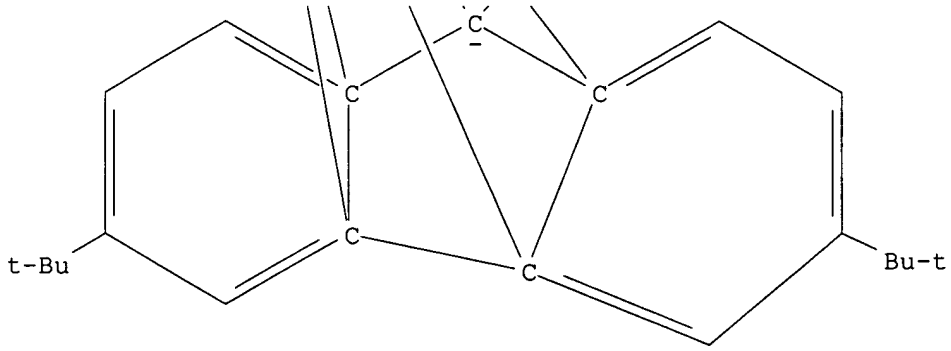


PAGE 3-A

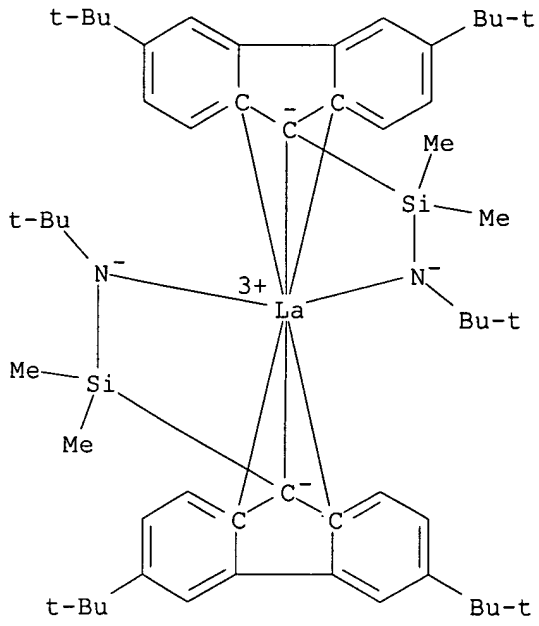
PAGE 3-C



RN 752997-00-5 HCAPLUS
CN Lithium(1+), bis[1,1'-oxybis[ethane]]-, bis[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]lanthanate(1-) (9CI) (CA INDEX NAME)

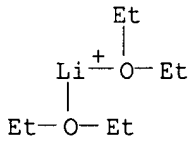
CM 1

CRN 624739-66-8
CMF C54 H78 La N2 Si2
CCI CCS



CM 2

CRN 78127-97-6
CMF C8 H20 Li O2
CCI CCS



L70 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:611929 HCAPLUS
DN 141:157620
TI Metallocenes bridged with Group III elements and based on cyclopentadienyl-fluorenyl ligands
IN **Carpentier, Jean Francois; Kirillov, Evgueni; Razavi, Abbas**
PA **Atofina** Research, Belg.; Centre National de la Recherche Scientifique CNRS
SO Fr. Demande, 20 pp.
CODEN: FRXXBL
DT **Patent**
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 2850386	A1	20040730	FR 2003-918	20030128 <--
WO 2004067591	A1	20040812	WO 2004-EP643	20040123 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI

EP 1594906 A1 20051116 EP 2004-704606 20040123 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1742028 A 20060301 CN 2004-80002909 20040123 <--

JP 2006515887 T2 20060608 JP 2006-501607 20040123 <--

PRAI FR 2003-918 A 20030128 <--

WO 2004-EP643 W 20040123

OS MARPAT 141:157620

AB (FluR''Cp)M(η3-C3R'5)(ether)n, in which Cp is (substituted) cyclopentadienyl, Flu is (substituted) fluorenyl, R'' is a structural bridge between Cp and Flu conferring the stereorigidity of the component, M is a metal of Group IIIB of the Periodic Table, each R' is identical or different and represents hydrogen or a hydrocarbyl comprising from 1 to 20 atoms of carbon and n is 0, 1 or 2 are manufactured for use as catalysts for controlled polymerization of polar and nonpolar monomers. A typical metallocene was manufactured by adding 2 equiv BuLi (4.6 mL solution 1.6 M in hexane) to Et2O containing 1 g C13H8H-CHMe2-C5H4H at -10° with vigorous stirring, aging the mixture 3 h at room temperature, cooling the resulting suspension to -20°, adding a suspension of YCl3(THF) (prepared from 0.72 g YCl3) in Et2O, warming to room temperature, suspending 0.390 resulting powder with PhMe, adding 0.27 mL solution of 2 M allyl magnesium chloride in THF, and stirring 8 h.

IT **611233-16-0P**

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

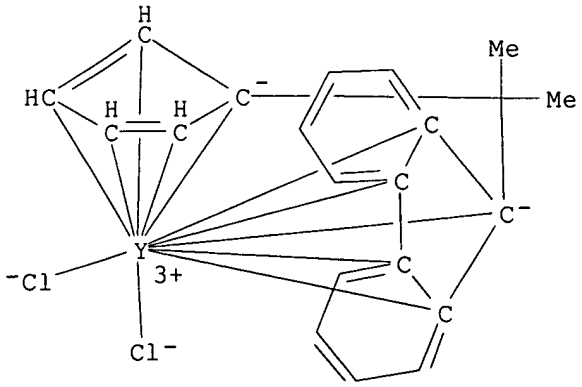
(catalyst precursor; metallocenes bridged with Group IIIB elements and based on cyclopentadienyl-fluorenyl ligands for catalysts for polymerization of polar and nonpolar monomers)

RN 611233-16-0 HCAPLUS

CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, dichloro[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

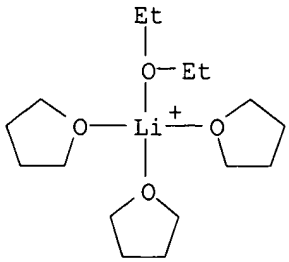
CM 1

CRN 611233-15-9
CMF C21 H18 Cl2 Y
CCI CCS

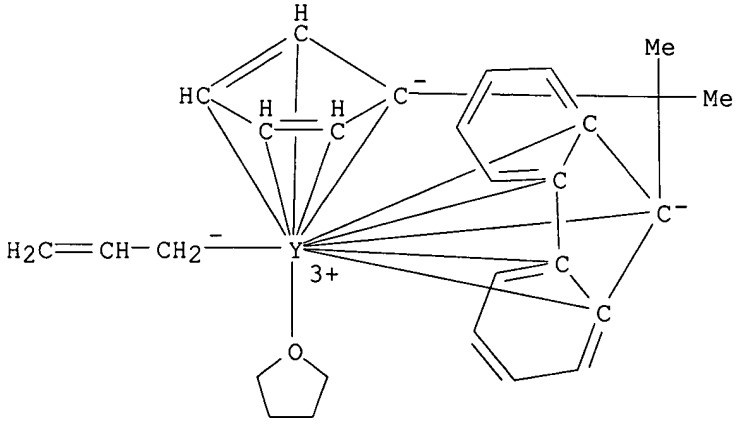


CM 2

CRN 444121-94-2
CMF C16 H34 Li O4
CCI CCS



IT **714977-58-9P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(metallocenes bridged with Group IIIB elements and based on cyclopentadienyl-fluorenyl ligands for catalysts for polymerization of polar and nonpolar monomers)
RN 714977-58-9 HCAPLUS
CN Yttrium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]-2-propenyl(tetrahydrofuran)- (9CI) (CA INDEX NAME)



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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Yasuda, H	1995			JP 07258319 A	HCAPLUS

L70 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:549514 HCAPLUS
DN 141:89539
TI Metallocenes bridged with Group III elements and based on cyclopentadienyl-fluorenyl ligands
IN **Carpentier, Jean Francois; Kirillov, Evgueni; Razavi, Abbas**

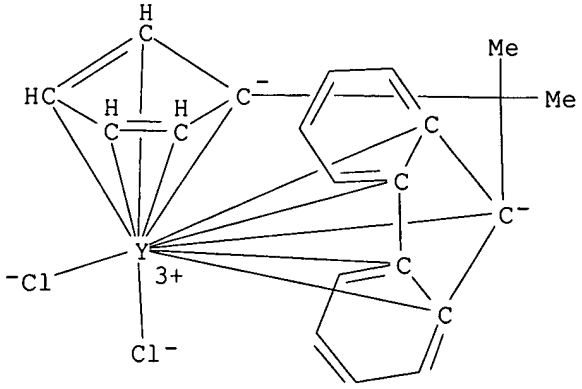
PA **Atofina** Research, Belg.; Centre National De La Recherche Scientifique CNRS
SO Fr. Demande, 22 pp.
CODEN: FRXXBL
DT **Patent**
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 2849654	A1	20040709	FR 2003-86	20030107 <--
WO 2004060942	A2	20040722	WO 2004-EP142	20040106 <--
WO 2004060942	A3	20041111		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
EP 1581567	A2	20051005	EP 2004-700260	20040106 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1738839	A	20060222	CN 2004-80001951	20040106 <--
JP 2006516997	T2	20060713	JP 2006-500547	20040106 <--
US 2006116278	A1	20060601	US 2005-541644	20051216 <--
PRAI FR 2003-86	A	20030107	<--	
WO 2004-EP142	W	20040106	<--	

OS MARPAT 141:89539
AB (FluR''Cp)M(η3-C3R'5)(ether)n, in which Cp is (substituted) cyclopentadienyl, Flu is (substituted) fluorenyl, R'' is a structural bridge between Cp and Flu conferring the stereorigidity of the component, M is a metal of Group IIIB of the Periodic Table, each R' is identical or different and represents hydrogen or a hydrocarbyl comprising from 1 to 20 atoms of carbon and n is 0, 1 or 2 are manufactured for use as catalysts for controlled polymerization of polar and nonpolar monomers. A typical metallocene was manufactured by adding 2 equiv BuLi (4.6 mL solution 1.6 M in hexane) to Et2O containing 1 g C13H8H-CHMe2-C5H4H at -10° with vigorous stirring, aging the mixture 3 h at room temperature, cooling the resulting suspension to -20°, adding a suspension of YCl3(THF) (prepared from 0.72 g YCl3) in Et2O, warming to room temperature, suspending 0.390 resulting powder with PhMe, adding 0.27 mL solution of 2 M allyl magnesium chloride in THF, and stirring 8 h.
IT **611233-16-0P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(catalyst precursor; metallocenes bridged with Group IIIB elements and based on cyclopentadienyl-fluorenyl ligands for catalysts for polymerization of polar and nonpolar monomers)
RN 611233-16-0 HCAPLUS
CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, dichloro[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

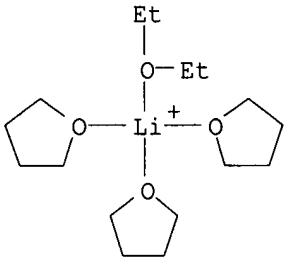
CM 1

CRN 611233-15-9
CMF C21 H18 Cl2 Y
CCI CCS

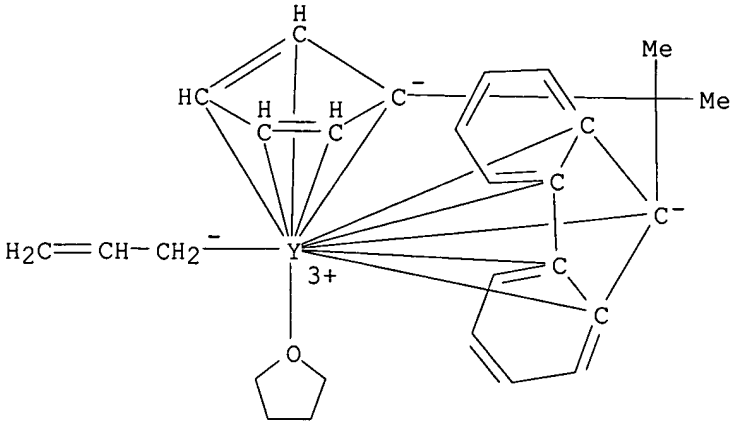


CM 2

CRN 444121-94-2
CMF C16 H34 Li O4
CCI CCS



IT **714977-58-9P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(metallocenes bridged with Group IIIB elements and based on cyclopentadienyl-fluorenyl ligands for catalysts for polymerization of polar and nonpolar monomers)
RN 714977-58-9 HCAPLUS
CN Yttrium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]-2-propenyl(tetrahydrofuran)- (9CI) (CA INDEX NAME)



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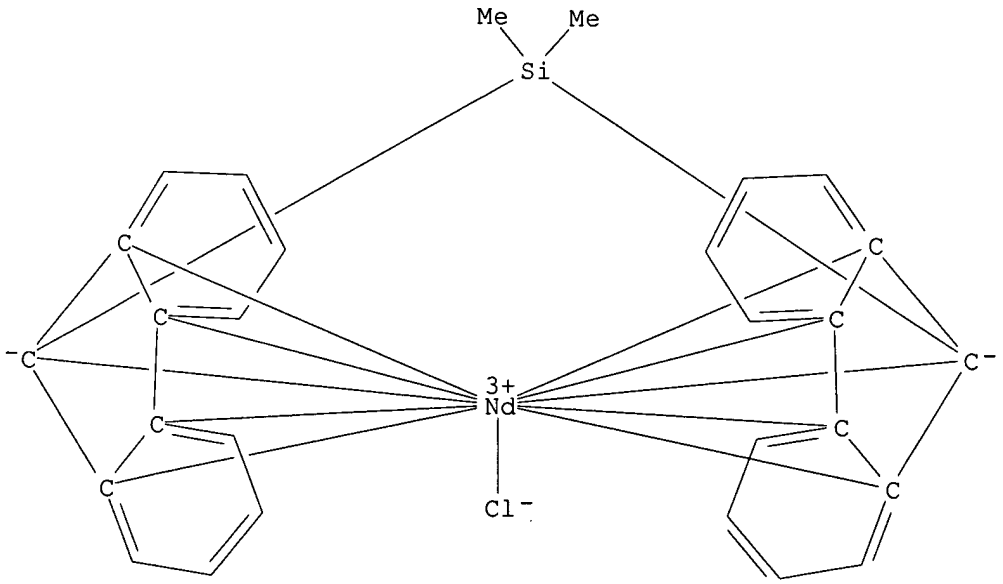
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Yasuda, H	1995			JP 07258319 A	HCAPLUS

L70 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:354982 HCAPLUS
DN 140:340585
TI Ethylene/butadiene copolymers, catalytic system of producing same and production of said polymers
IN Monteil, Vincent; Spitz, Roger; Boisson, Christophe
PA Societe De Technologie Michelin, Fr.; Michelin Recherche Et Technique S.A.; **Atofina** Research
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT **Patent**
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004035639	A1	20040429	WO 2003-EP11303	20031013 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2502345	AA	20040429	CA 2003-2502345	20031013 <--
AU 2003286138	A1	20040504	AU 2003-286138	20031013 <--
EP 1554321	A1	20050720	EP 2003-776864	20031013 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003015380	A	20050823	BR 2003-15380	20031013 <--
CN 1711292	A	20051221	CN 2003-80103366	20031013 <--
JP 2006503141	T2	20060126	JP 2004-544193	20031013 <--
US 2005239639	A1	20051027	US 2005-106619	20050415 <--
US 7094854	B2	20060822		

PRAI FR 2002-12893 A 20021016 <--
WO 2003-EP11303 W 20031013 <--
OS MARPAT 140:340585
AB The copolymers comprise a molar ratio of units derived from butadiene which is greater than or equal to 8 %, said units comprising trans-1,2-cyclohexane chain formations, and have an number-average mol. weight which is greater than or equal to 40,000 g/mol. The catalytic system consists of (i) an organometallic complex which is represented by Cp1(Cp2)LnX (I) wherein: Ln represents a lanthanide, X represents a halogen, and Cp1 and Cp2 are each formed by a fluorenyl group, or an organometallic complex composed of similar components as I but Cp1 and Cp2 are also bridged by MR2, wherein M is an element from column IVA and R is an alkyl with between 1 and 20 carbon atoms. . The catalytic system also consists of (ii) a co-catalyst belonging to the group comprising a magnesium alkyl, a lithium alkyl, an aluminum alkyl, a Grignard reagent or a mixture of said components. Said catalytic system is such that the molar ratio (co-catalyst/organometallic complex) lies between 1 and 8.
IT **334834-50-3P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(manufacture of ethylene-butadiene copolymers in presence of metallocene complexes of lanthanide metals and fluorenyl groups optionally bridged by Group IVA element-based groups)
RN 334834-50-3 HCAPLUS
CN Neodymium, chloro[(dimethylsilylene)bis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-ylidene]]- (9CI) (CA INDEX NAME)



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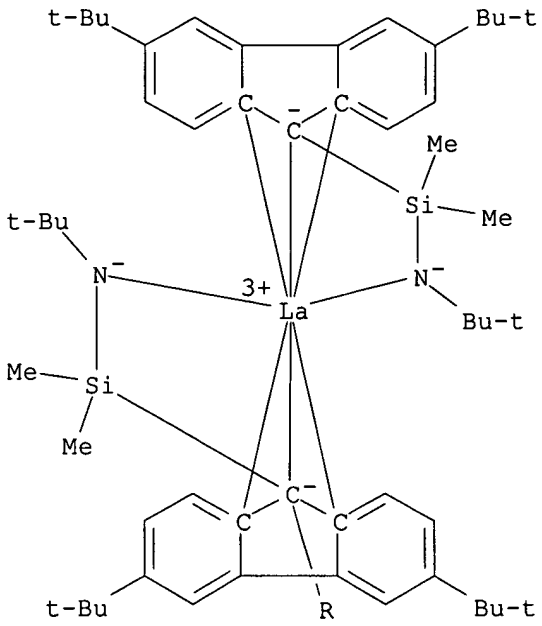
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Cui, L	1998	40	729	POLYMER BULLETIN	HCAPLUS
Evans, W	1994	27	4011	MACROMOLECULES	HCAPLUS
Llauro, M	2001	34	6304	MACROMOLECULES	HCAPLUS
Michelin Rech Tech	2001			EP 1092731 A	HCAPLUS

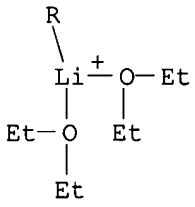
Nakamura, H |2000 |19 |5392 |ORGANOMETALLICS |HCAPLUS

L70 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:761605 HCAPLUS
DN 139:381567
TI "Constrained Geometry" Group 3 Metal Complexes of the Fluorenyl-Based Ligands [(3,6-tBu2Flu)SiR2NtBu]: Synthesis, Structural Characterization, and Polymerization Activity
AU **Kirillov, Evgueni**; Toupet, Loic; Lehmann, Christian W.; **Razavi, Abbas**; **Carpentier, Jean-Francois**
CS Organometalliques et Catalyse, Groupe Matiere Condensee et Materiaux Cristallochimie, Universite de Rennes 1, UMR 6509 CNRS, UMR 6626 CNRS, Rennes, 35042, Fr.
SO Organometallics (**2003**), 22(22), 4467-4479
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 139:381567
AB Alkane elimination between Y(CH2SiMe3)3(THF)2 and the diprotio ligands [(3,6- tBu2C13H7)SiR2NHtBu] (R = Me, 1a; R = Ph, 1b) gave [η3:η1-((3,6-tBu2C13H6)SiR2NtBu)Y(CH2SiMe3)(THF)2] (R = Me, 2a; R = Ph, 2b). 2A is thermally stable in toluene solution and shows a dynamic behavior connected to THF dissociation, while 2b is thermally unstable. Reaction of 2a with H2 or PhSiH3 led to the putative hydrido complex "[(3,6-tBu2Flu)(SiMe2NtBu)YH(THF)]n" (3). Deprotonation of 1a with 1 and 2 equivalent of nBuLi gave [(3,6-tBu2C13H6)SiMe2NHtBu]Li (5) and [(3,6-tBu2C13H6)SiMe2NtBu]Li2 (4), resp., both of which were characterized crystallog. Salt elimination reactions between LnCl3(THF)n precursors (Ln = Y, La, Nd) and 1 equivalent of 4 gave mixts. of complexes, from which ionic complexes that contain two chelated ligands per lanthanide center, [{η3:η1-(3,6-tBu2C13H6)SiMe2NtBu}2Ln]-[Li(solvent)n]+ (Ln = Y, solvent = THF, n = 4, 6; Ln = La, solvent = THF, n = 4, 7; Ln = La, solvent = Et2O, n = 2, 8; Ln = Nd, solvent = THF, n = 4, 9), were isolated. The neutral dimeric chloro complex [η5:η1-((3,6-tBu2C13H6)SiMe2NtBu)Nd(μ-Cl)(THF)]2 (10) was also crystallized from the crude metathesis product. The solid-state structures of 2a, 8, 9, and 10 show versatile coordination modes of the fluorenyl ligands, either η3 or η5 sym., involving carbon atoms of the central Cp ring (8 and 10), or unusual η3 dissym., involving carbon atoms of the central Cp and one adjacent Ph rings (2a and 9). Some of the complexes obtained were explored as catalysts for ethylene and MMA polymerization
IT **624739-68-0P 624739-71-5P 625094-77-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; preparation, crystal structure, and polymerization catalytic
activity of constrained geometry lanthanide complexes of aminosilyl fluorenyl-based ligands)
RN 624739-68-0 HCAPLUS
CN Lithium, [μ-[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl-κC9]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]][[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]lanthanum]bis[1,1'-oxybis[ethane]]- (9CI) (CA INDEX NAME)

PAGE 1-A

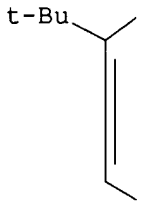


PAGE 2-A



RN 624739-71-5 HCAPLUS
CN Neodymium, bis[1-[(4a,4b,8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]di-μ-chlorobis(tetrahydrofuran)di-, stereoisomer (9CI) (CA INDEX NAME)

PAGE 1-A



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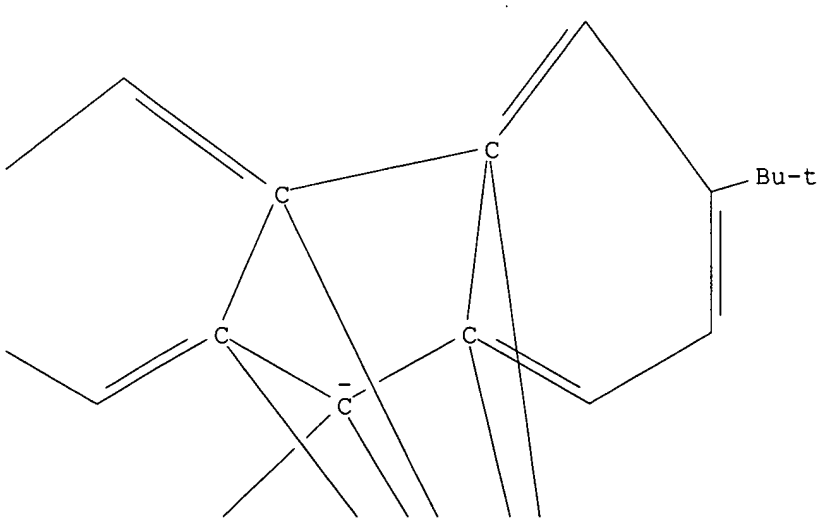
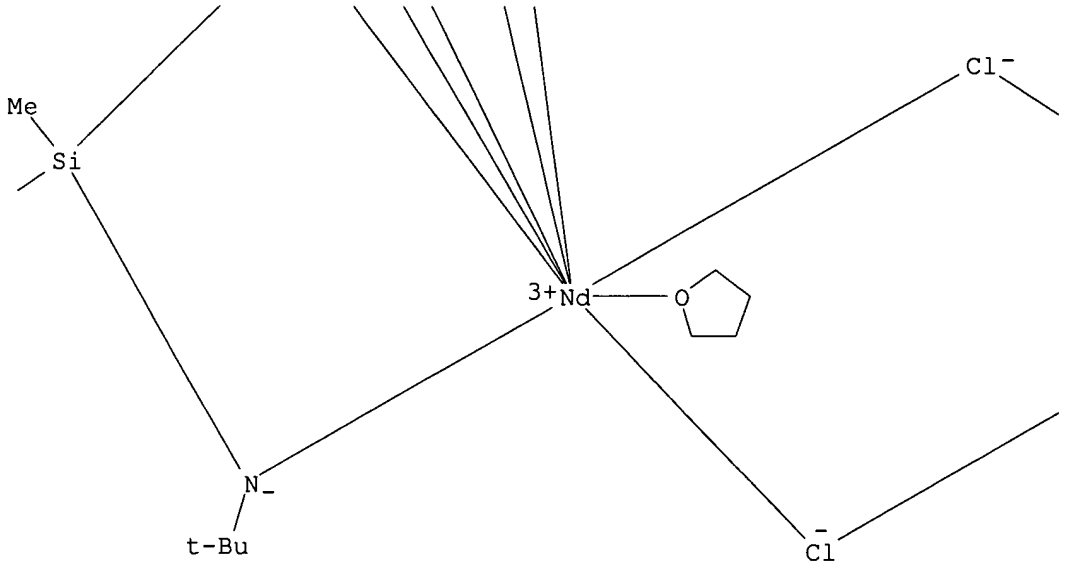


PAGE 2-A

Me

PAGE 2-B



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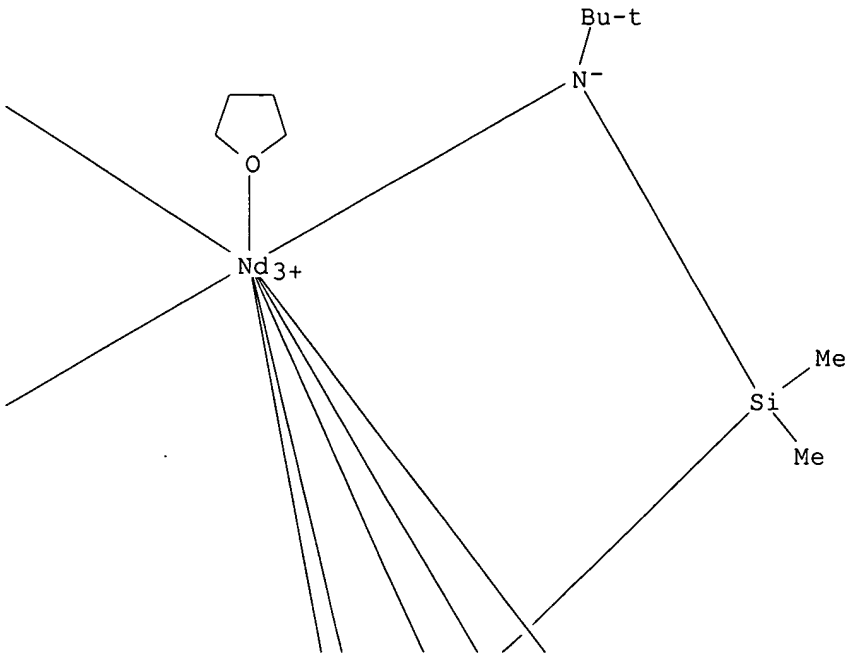
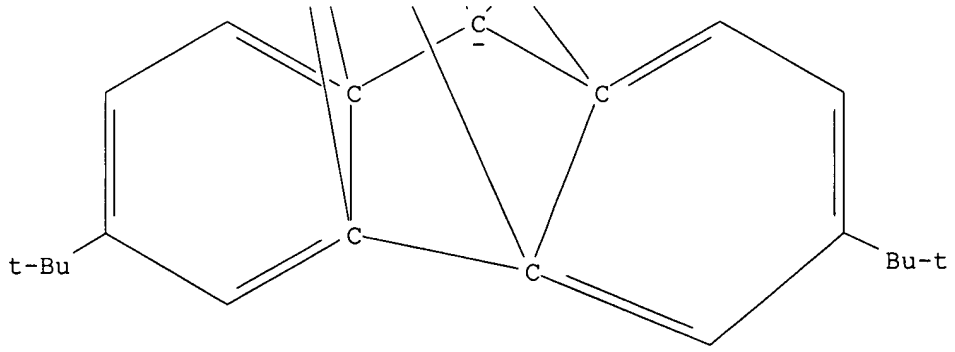


PAGE 3-A

PAGE 3-C



RN 625094-77-1 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, stereoisomer of [1-[(1,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN][1-[(8a,9-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]neodymate(1-), compd. with methylbenzene and tetrahydrofuran (1:1:1) (9CI) (CA INDEX NAME)

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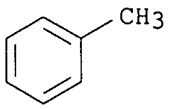
CMF C4 H8 O

CM 2

CRN 108-88-3
CMF C7 H8



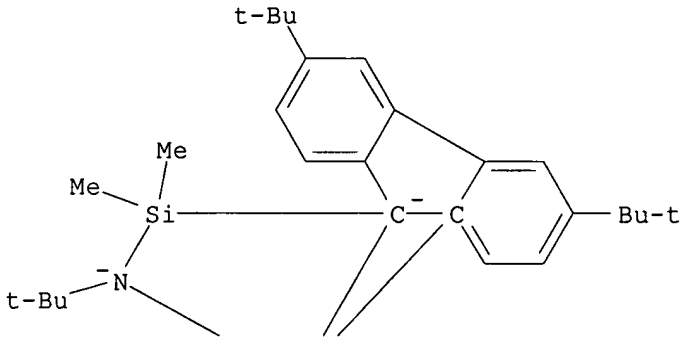
CM 3

CRN 624739-70-4
CMF C58 H86 N2 Nd O Si2 . C16 H32 Li O4

CM 4

CRN 624739-69-1
CMF C58 H86 N2 Nd O Si2
CCI CCS

PAGE 1-A



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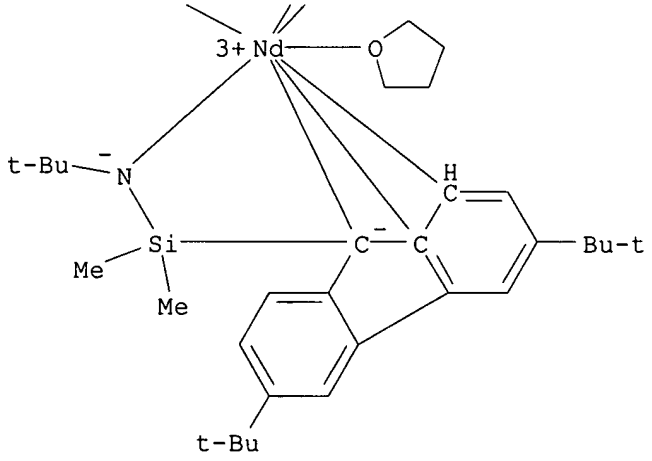
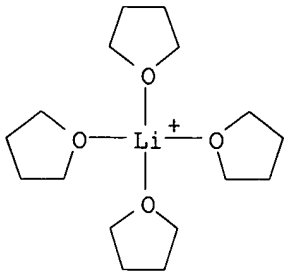


CM 5

CRN 48186-27-2
CMF C16 H32 Li O4
CCI CCS

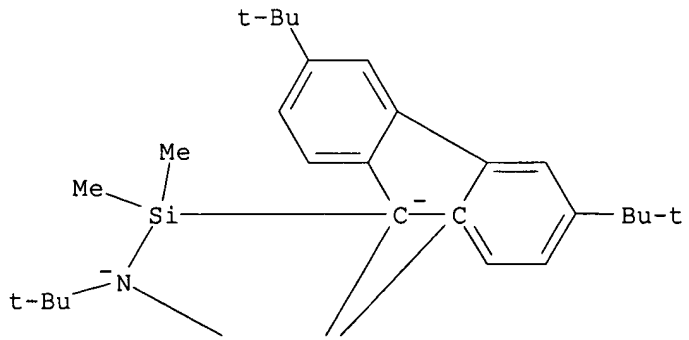


IT **624739-70-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(mol. structure; preparation, crystal structure, and polymerization catalytic activity of constrained geometry lanthanide complexes of aminosilyl fluorenyl-based ligands)
RN 624739-70-4 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, stereoisomer of [1-[(1,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN][1-[(8a,9-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]neodymate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 624739-69-1
CMF C58 H86 N2 Nd O Si2
CCI CCS

PAGE 1-A



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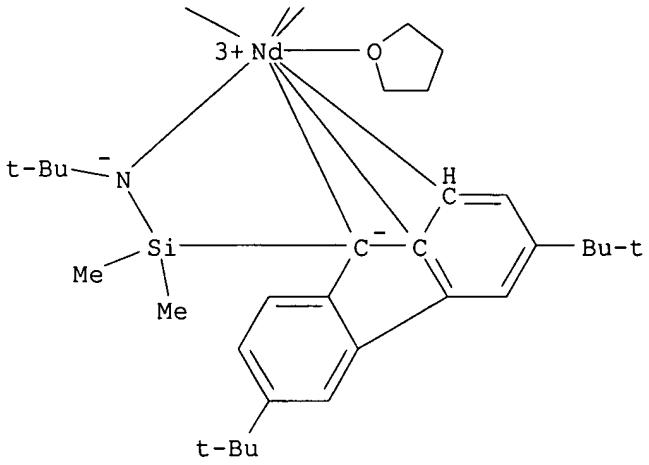
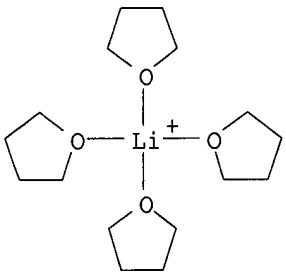


CM 2

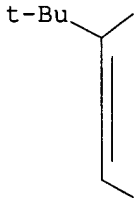
CRN 48186-27-2
CMF C16 H32 Li O4
CCI CCS



IT **624739-61-3P 624739-67-9P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation, crystal structure, and polymerization catalytic activity of constrained geometry lanthanide complexes of aminosilyl fluorenyl-based ligands)

RN 624739-61-3 HCAPLUS
CN Yttrium, bis[1-[(4a,4b,8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]di-μ-hydrobis(tetrahydrofuran)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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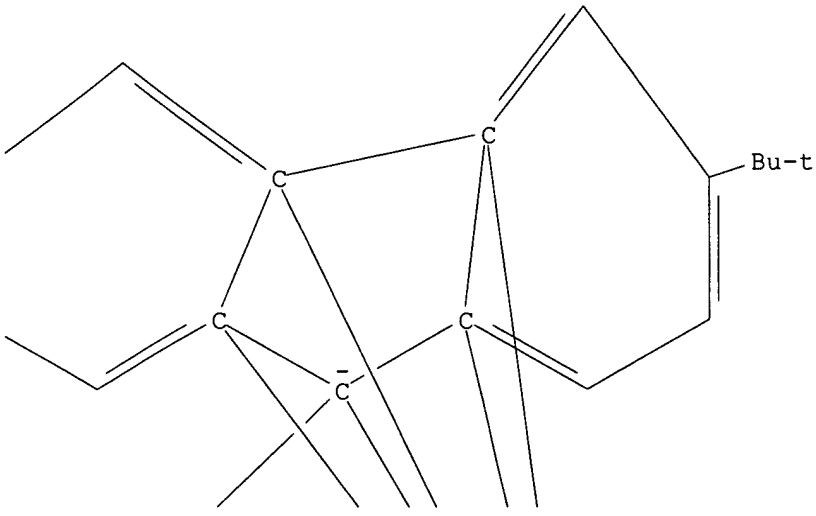

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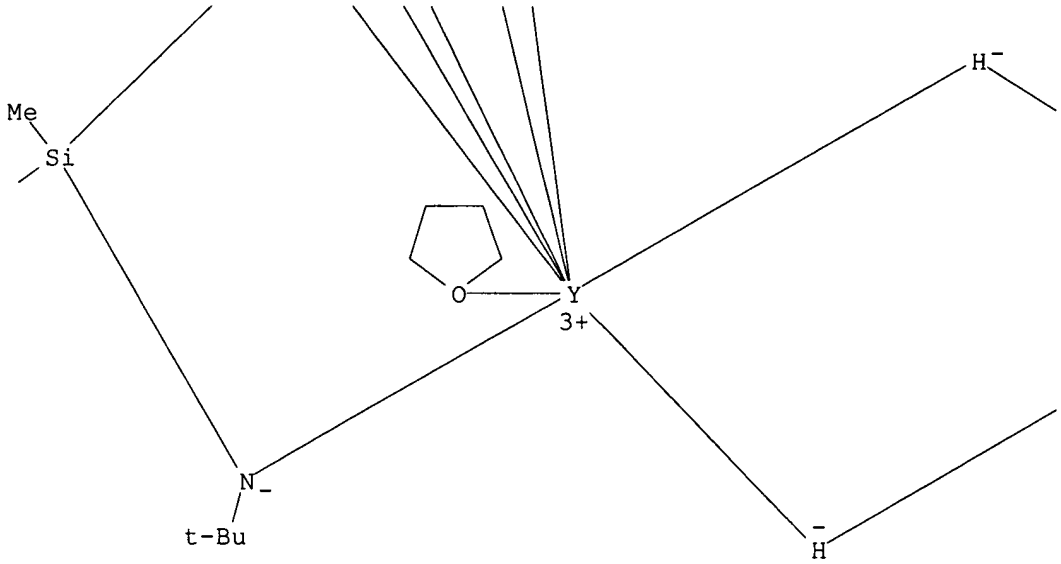
PAGE 2-B



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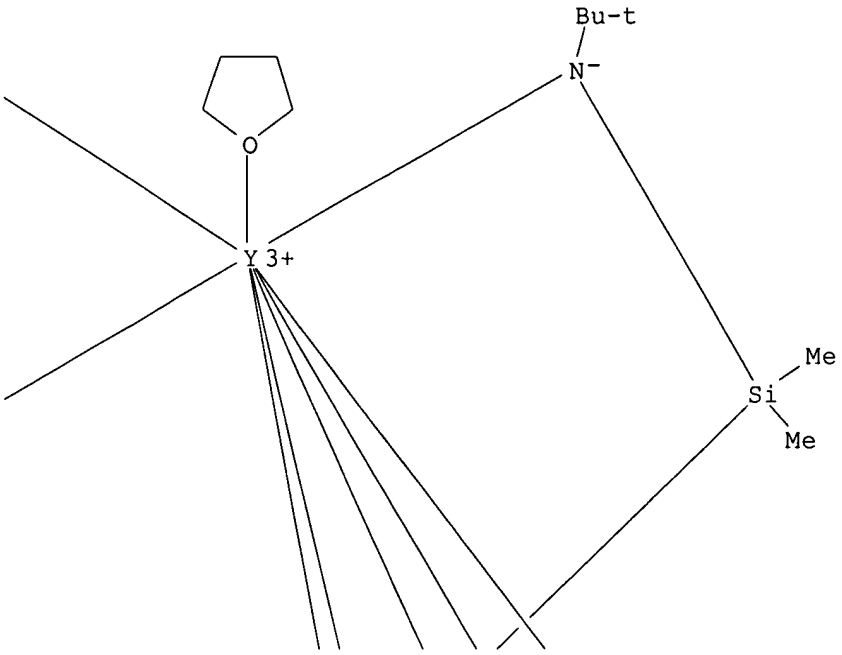
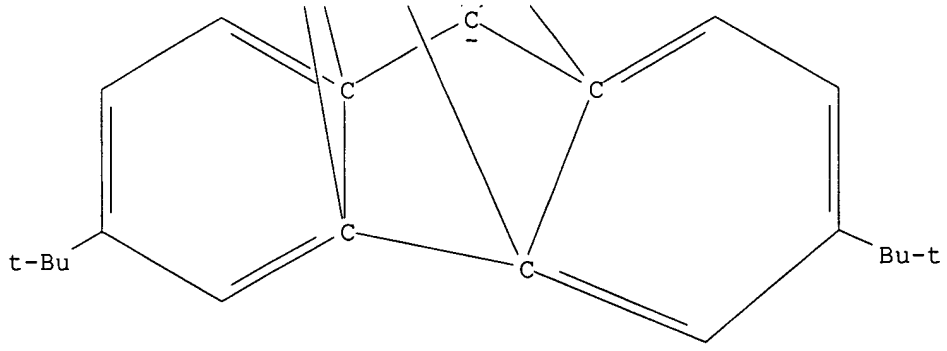


PAGE 3-A

PAGE 3-C



RN 624739-67-9 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, bis[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]lanthanate(1-) (9CI) (CA INDEX NAME)

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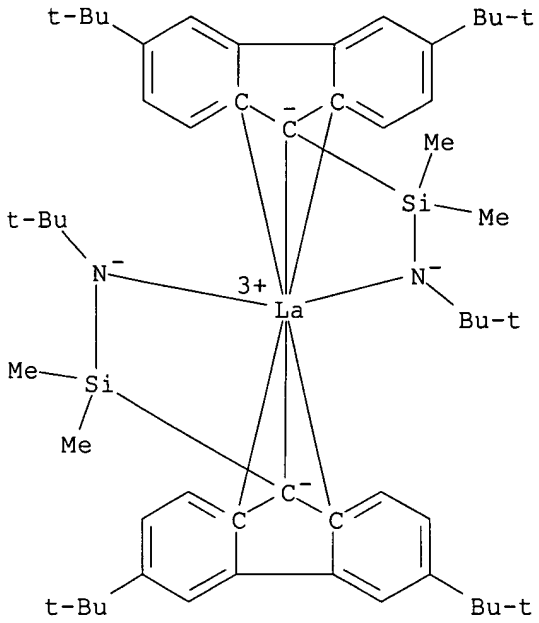
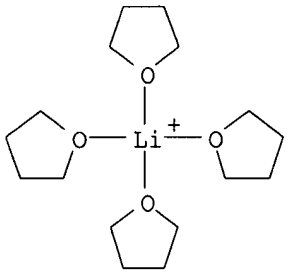
CRN 624739-66-8
CMF C54 H78 La N2 Si2
CCI CCS



CM 2

CRN 48186-27-2
CMF C16 H32 Li O4
CCI CCS



IT **624739-65-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, crystal structure, and polymerization catalytic activity of constrained geometry lanthanide complexes of aminosilyl fluorenyl-based ligands)
RN 624739-65-7 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, bis[1-[(8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]yttrate(1-) (9CI) (CA INDEX NAME)

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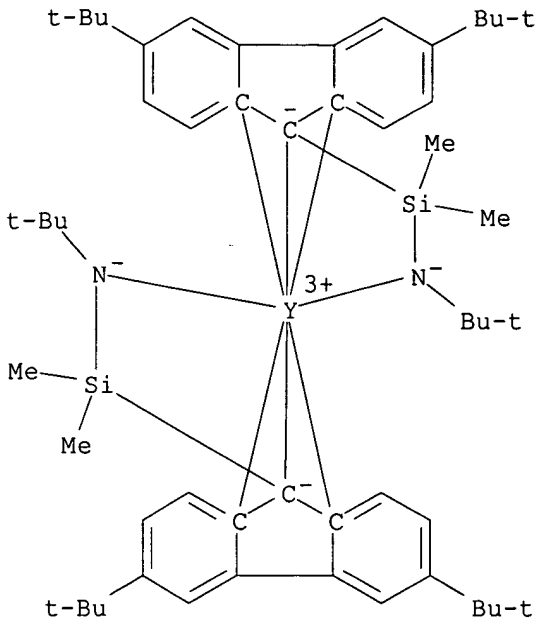
CRN 624739-64-6
CMF C54 H78 N2 Si2 Y

CCI CCS



CM 2

CRN 48186-27-2
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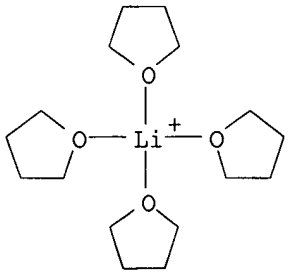
CCI CCS



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anwander, R	1996	2	866	Applied Homogeneous	HCAPLUS
Anwander, R	1996	179	1	Top Curr Chem	HCAPLUS
Anwander, R	1999	2	1	Top Organomet Chem	HCAPLUS
Arndt, S	2002	102	1953	Chem Rev	HCAPLUS
Arndt, S	2002	647	158	J Organomet Chem	HCAPLUS
Arndt, S	2000	19	4690	Organometallics	HCAPLUS
Arndt, S	2003	22	775	Organometallics	HCAPLUS
Arredondo, V	1999	121	3633	J Am Chem Soc	HCAPLUS
Becker, B	1989	28	458	Angew Chem, Int Ed E	

Berg, D	2000	78	454	Can J Chem	HCAPLUS
Bochmann, M	1993	12	4718	Organometallics	HCAPLUS
Bogaert, S	2001	20	199	Organometallics	HCAPLUS
Boisson, C	2000		75	Progress and Develop	
Bordwell, F	1983	105	6188	J Am Chem Soc	HCAPLUS
Dash, A	2002	21	3238	Organometallics	HCAPLUS
Desurmont, G	2000	19	1811	Organometallics	HCAPLUS
Douglass, M	2001	123	10221	J Am Chem Soc	HCAPLUS
Edelmann, F	1996	179	247	Top Curr Chem	HCAPLUS
Ephritikhine, M	1997	97	2193	Chem Rev	HCAPLUS
Eppinger, J	2000	122	3080	J Am Chem Soc	HCAPLUS
Evans, W	1994	13	1281	Organometallics	HCAPLUS
Gagne, M	1992	114	275	J Am Chem Soc	HCAPLUS
Giardello, M	1995	117	3276	J Am Chem Soc	HCAPLUS
Gibson, V	2003	103	283	Chem Rev	HCAPLUS
Giesbrecht, G	2001		923	J Chem Soc, Dalton T	HCAPLUS
Harder, S	1997	16	107	Organometallics	HCAPLUS
Hasan, T	2002	35	8933	Macromolecules	HCAPLUS
Hitchcock, P	2000	19	3420	Organometallics	HCAPLUS
Hong, S	2002	124	7886	J Am Chem Soc	HCAPLUS
Hou, Z	2002	231	1	Coord Chem Rev	HCAPLUS
Hou, Z	2002	647	61	J Organomet Chem	HCAPLUS
Hou, Z	2001	20	3323	Organometallics	HCAPLUS
Hultzsch, K	1999	38	227	Angew Chem, Int Ed	HCAPLUS
Hultzsch, K	1997	16	4845	Organometallics	HCAPLUS
Hultzsch, K	2000	19	228	Organometallics	HCAPLUS
Jeske, G	1985	107	8103	J Am Chem Soc	HCAPLUS
Jin, Z	1987	1	1	Sci Sin, Ser B	
Kirillov, E				Manuscript in prepar	
Kirillov, E	2003	22	4038	Organometallics	HCAPLUS
Lappert, M	1973		126	J Chem Soc, Chem Com	HCAPLUS
Lauher, J	1976	98	1729	J Am Chem Soc	HCAPLUS
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Littger, R	1994	27	1901	Chem Ber	
March, J	1992			Advanced Organic Che	
Marks, T	1976	15	1302	Inorg Chem	HCAPLUS
McKnight, A	1998	98	2587	Chem Rev	HCAPLUS
Mitchell, P	1996	118	1045	J Am Chem Soc	
Molander, G	1998	11	237	Chemtracts:Org Chem	HCAPLUS
Molander, G	1999	2	119	Top Organomet Chem	HCAPLUS
Mu, Y	1995	73	2233	Can J Chem	HCAPLUS
Mu, Y	1996	15	2720	Organometallics	HCAPLUS
Nakamura, H	2000	19	5392	Organometallics	HCAPLUS
Nie, W	2002	647	114	J Organomet Chem	HCAPLUS
Nishiura, M	2003	125	1184	J Am Chem Soc	HCAPLUS
Okuda, J	2001		156	Organometallic Catal	HCAPLUS
Okuda, J	2001	73	351	Pure Appl Chem	HCAPLUS
Piers, W	1990		74	Synlett	HCAPLUS
Qian, C	1999		3283	J Chem Soc, Dalton T	HCAPLUS
Qian, C	2001	626	171	J Organomet Chem	HCAPLUS
Qian, C	2002	645	82	J Organomet Chem	HCAPLUS
Qian, C	2000	19	4134	Organometallics	HCAPLUS
Razavi, A	2001	621	267	J Organomet Chem	HCAPLUS
Razavi, A	2001		267	Organometallic Catal	
Roesky, P	2002	21	4756	Organometallics	HCAPLUS
Ryu, J	2001	3	3091	Org Lett	HCAPLUS
Schmid, M	1997	541	3	J Organomet Chem	HCAPLUS
Schumann, H	1995	95	865	Chem Rev	HCAPLUS
Shannon, R	1976	A32	751	Acta Crystallogr, Se	HCAPLUS
Shapiro, P	1994	116	4623	J Am Chem Soc	HCAPLUS

Shapiro, P	1990	9	867	Organometallics	HCAPLUS
Sheldrick, G	1997			SHELXL-97, Program f	
Sheldrick, G	1997			SHELXS-97, Program f	
Tardif, O	2001	20	4565	Organometallics	HCAPLUS
Tian, S	1999	18	2568	Organometallics	HCAPLUS
Trifonov, A	2003		926	Eur J Inorg Chem	HCAPLUS
Trifonov, A	2001	20	4869	Organometallics	HCAPLUS
Uffing, C	1998	17	3512	Organometallics	
Von Zelewsky, A	1996		78	Stereochemistry of C	
Voth, P	2003	22	65	Organometallics	HCAPLUS
Xu, G	2001	34	2040	Macromolecules	HCAPLUS
Yoder, J	1998	17	4946	Organometallics	HCAPLUS

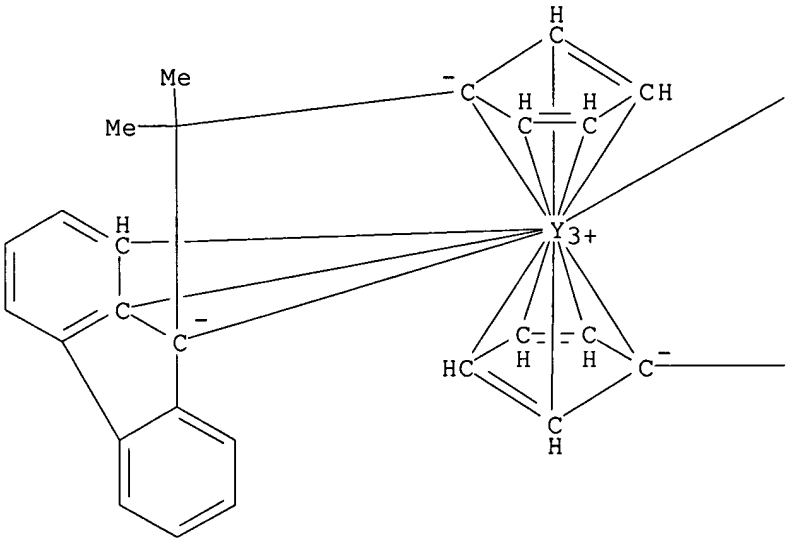
L70 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:664027 HCAPLUS
DN 139:307861
TI [(Cp-CMe2-Flu)2Ln]-[Li(ether)n]+ (Ln = Y, La): Complexes with Unusual Coordination Modes of the Fluorenyl Ligand and the First Examples of Bis-Ansa Lanthanidocenes
AU **Kirillov, Evgueni**; Toupet, Loic; Lehmann, Christian W.; **Razavi, Abbas**; Kahlal, Samia; Saillard, Jean-Yves; **Carpentier, Jean-Francois**
CS Organometalliques et Catalyse, Institut de Chimie de Rennes, UMR 6509 CNRS-Universite de Rennes 1, Rennes, 35042, Fr.
SO Organometallics (**2003**), 22(20), 4038-4046
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 139:307861
AB Salt metathesis reactions between LnCl3(THF)n (Ln = Y, La) and 1 equivalent of the dilithium salt of the isopropylidene-bridged ligand [Flu-CMe2-Cp]Li2 (Flu = fluorenyl), in di-Et ether solution, led to the isolation of new ionic metallocene complexes, [(Cp-CMe2-Flu)2Ln]-[Li(ether)n]+ (ether = Et2O, THF; Ln = Y, n = 4, 2; Ln = La, n = 2, 3), which contain two chelating ligand units per metal center. The ionic complex 2 presumably originates from ligand redistribution in the primary formed heteroleptic ate complex [(Cp-CMe2-Flu)YCl2]-[Li(ether)4]+ (1) upon crystallization Complex 2 was selectively prepared on using 2 equivalent of [Cp-CMe2-Flu]Li2 vs YCl3(THF)3.5. The solid-state structures of 2 and 3 were established by x-ray diffraction studies. Three polymorphic varieties of 2 were identified and all shown to correspond to a fully dissociated ion pair with the formula [(η3:η5-Flu-CMe2-Cp)(η1:η5-Flu-CMe2-Cp)Y]-[Li(Et2O)(THF)3]+ (2). The fluorenyl ligands in 2 show an unprecedented η1 bonding mode and a rare η3 bonding mode involving, resp., a carbon atom of a Ph ring and the bridgehead carbon atom of the central ring and the two adjacent carbon atoms of one six-membered ring. DFT computations carried out on the anionic fragment of 2 corroborated the nature of these bonding modes. Only the last exocyclic η3-bonding mode is observed for the fluorenyl moieties in complex 3, which features an associated ion-pair structure with the formula [(η3:η5-Flu-CMe2-Cp)2La]-[Li(OEt2)2]+. For comparison purposes, the isopropylidene-bridged bis(indenyl) complex [(Ind-CMe2-Ind)2Y]-[Li(THF)4]+ (4) was synthesized by a salt metathesis procedure and characterized by x-ray diffraction. In contrast to fluorenyl-containing complexes 2 and 3, only the cyclopentadienyl rings of the indenyl moieties coordinate to yttrium in 4. Ionic complexes 2-4 constitute the first structurally characterized examples of bis-ansa lanthanidocenes.
IT **611233-17-1**
RL: PRP (Properties)

(DFT calcn.; preparation, crystal structure, and DFT studies of isopropylidene bridged fluorenyl cyclopentadienyl lanthanide complexes with unusual coordination modes of fluorenyl ligand)

RN 611233-17-1 HCAPLUS

CN Yttrate(1-), rel-[η6-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-(1R)-1H-fluorene-1,9-diyl][η8-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-(1R)-9H-fluoren-9-ylidene]- (9CI) (CA INDEX NAME)

PAGE 1-A



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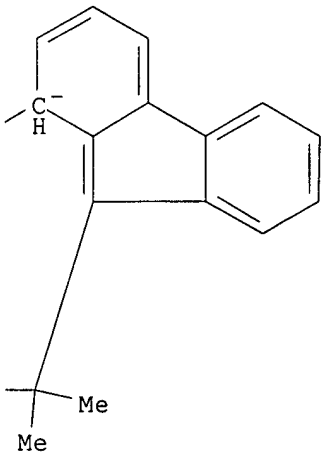


IT **611233-18-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(crystal structure, monoclinic and orthorhombic polymorphs; preparation,

crystal structure, and DFT studies of isopropylidene bridged fluorenyl cyclopentadienyl lanthanide complexes with unusual coordination modes of fluorenyl ligand)

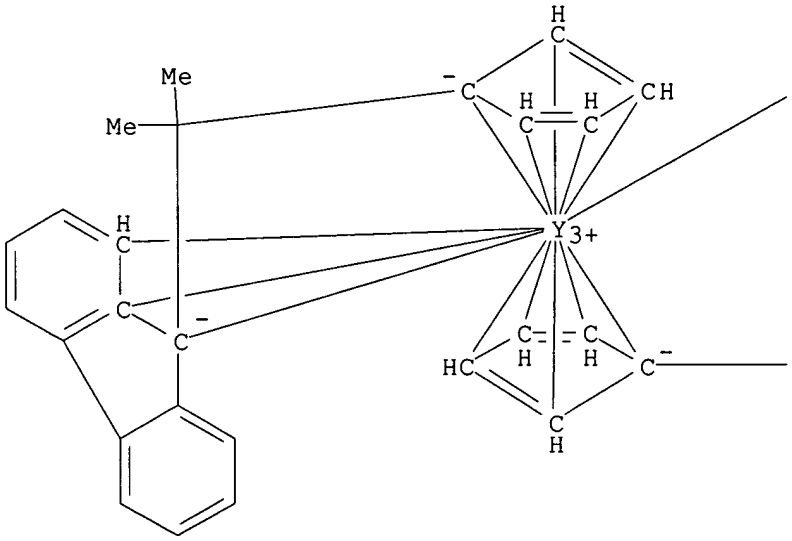
RN 611233-18-2 HCAPLUS

CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, stereoisomer of [η6-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-1H-fluorene-1,9-diyl][η8-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 611233-17-1
CMF C42 H36 Y
CCI CCS

PAGE 1-A



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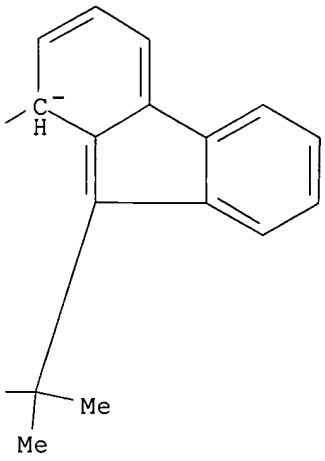

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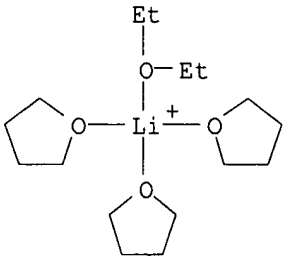
CCI CCS



IT **612060-80-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(crystal structure, triclinic polymorph; preparation, crystal structure, and DFT studies of isopropylidene bridged fluorenyl cyclopentadienyl lanthanide complexes with unusual coordination modes of fluorenyl ligand)
RN 612060-80-7 HCAPLUS
CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, stereoisomer of [η6-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-1H-fluorene-9,1-diyl][η8-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-), compd. with 1,1'-oxybis[ethane] (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 60-29-7
CMF C4 H10 O

$H_3C-CH_2-O-CH_2-CH_3$

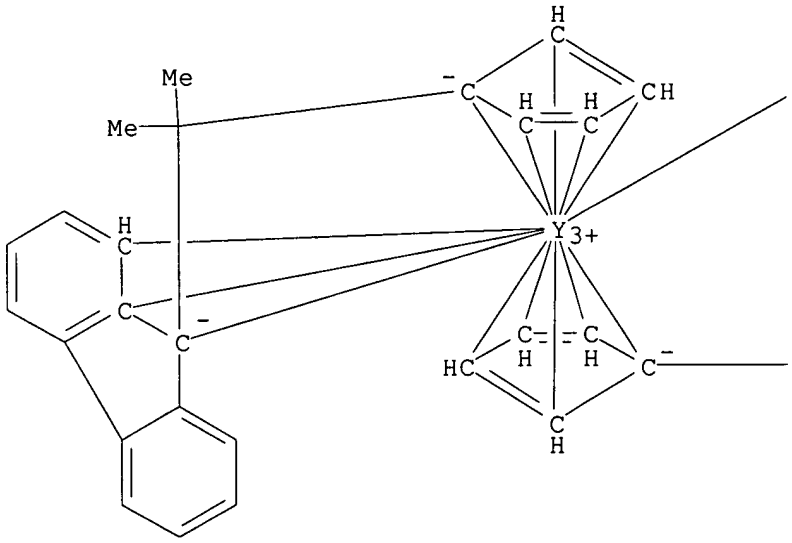
CM 2

CRN 611233-18-2
CMF C42 H36 Y . C16 H34 Li O4

CM 3

CRN 611233-17-1
CMF C42 H36 Y
CCI CCS

PAGE 1-A



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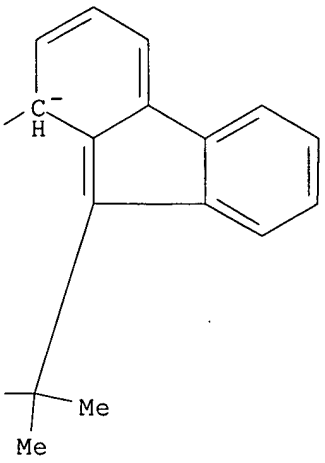
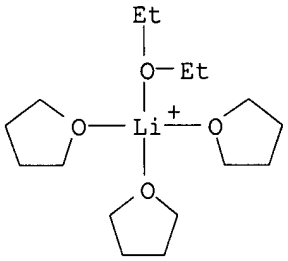


CM 4

CRN 444121-94-2
CMF C16 H34 Li O4
CCI CCS



IT **611233-16-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, crystal structure, and DFT studies of isopropylidene bridged fluorenyl cyclopentadienyl lanthanide complexes with unusual coordination modes of fluorenyl ligand)
RN 611233-16-0 HCAPLUS
CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, dichloro[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

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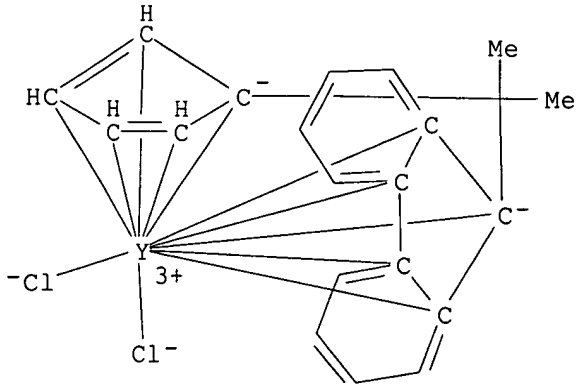
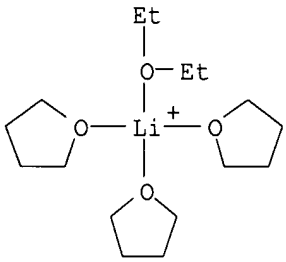
CRN 611233-15-9
CMF C21 H18 Cl2 Y
CCI CCS



CM 2

CRN 444121-94-2
CMF C16 H34 Li O4
CCI CCS



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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Alt, H	2000	100	1205	Chem Rev	HCAPLUS
Anwander, R	1996	2	866	Applied Homogeneous	HCAPLUS
Anwander, R	1996	179	1	Top Curr Chem	HCAPLUS
Anwander, R	1999	2	1	Top Organomet Chem	HCAPLUS
Arndt, S	2002	102	1953	Chem Rev	HCAPLUS
Baerends, E	1973	2	41	Chem Phys	HCAPLUS
Baerends, E	1978	S12	169	Int J Quantum Chem	
Becke, A	1988	A38	3098	Phys Rev	
Bickelhaupt, F	2000	15	1	Rev Comput Chem	HCAPLUS
Bochmann, M	1996		255	J Chem Soc, Dalton T	HCAPLUS
Bochmann, M	1993	12	4718	Organometallics	HCAPLUS
Boerringter, P	1988	33	87	Int J Quantum Chem	
Brintzinger, H	1995	34	1143	Angew Chem, Int Ed E	HCAPLUS
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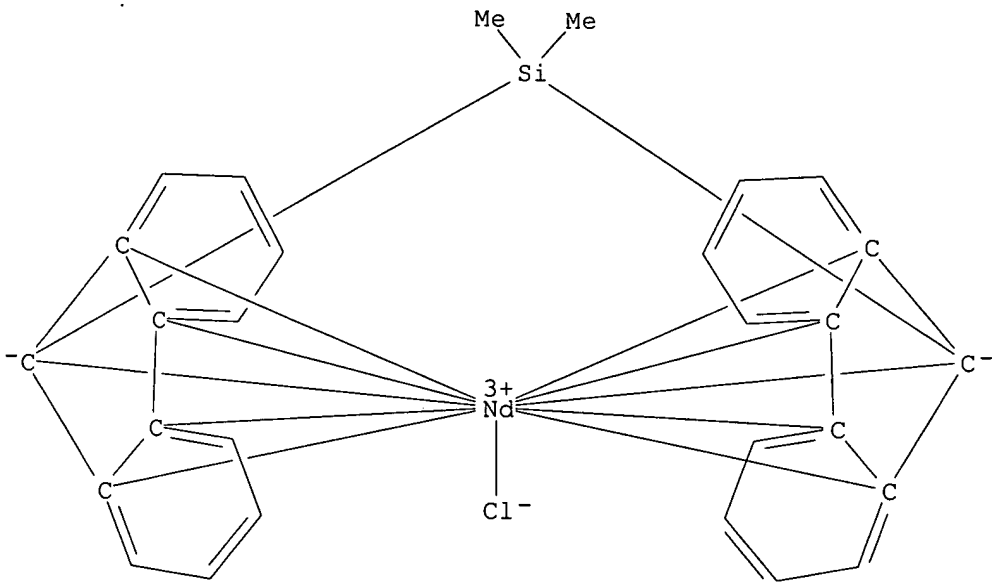
Den Haan, K	1986	5	1726	Organometallics	HCAPLUS
Drago, D	2000	19	1802	Organometallics	HCAPLUS
Drago, D	2000	19	1802	Organometallics	HCAPLUS
Edelmann, F	1996	179	247	Top Curr Chem	HCAPLUS
Evans, W	1983	104	2008	J Am Chem Soc	

Evans, W	1985	4	554	Organometallics	HCAPLUS
Evans, W	1994	13	1281	Organometallics	HCAPLUS
Ewen, J	1988	110	6255	J Am Chem Soc	HCAPLUS
Gao, H	1992	427	141	J Organomet Chem	HCAPLUS
Guerra, C				Amsterdam Density Fu	
Guerra, C	1998	98	391	Theor Chim Acta	
Harder, S	1997	16	107	Organometallics	HCAPLUS
Hou, Z	2002	231	1	Coord Chem Rev	HCAPLUS
Hou, Z	2002	231	1	Coord Chem Rev	HCAPLUS
Hultzsch, K	1997	16	4845	Organometallics	HCAPLUS
Jacob, K	1995	487	C18	J Organomet Chem	HCAPLUS
Jacob, K	1989	577	145	Z Anorg Allg Chem	HCAPLUS
Jordan, R	1991	32	325	Adv Organomet Chem	HCAPLUS
Kaminsky, W	1985	24	507	Angew Chem, Int Ed E	
Kaminsky, W	1998		1413	J Chem Soc, Dalton T	HCAPLUS
Kirillov, E				Manuscript in prepar	
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Molander, G	1999	2	119	Top Organomet Chem	HCAPLUS
Nakamura, H	2000	19	5392	Organometallics	HCAPLUS
Nie, W	2002	647	114	J Organomet Chem	HCAPLUS
Perdew, J	1986	B34	7406	Erratum	
Perdew, J	1986	B33	8822	Phys Rev	
Qian, C	1999		3283	J Chem Soc, Dalton T	HCAPLUS
Qian, C	2001	626	171	J Organomet Chem	HCAPLUS
Qian, C	2002	645	82	J Organomet Chem	HCAPLUS
Razavi, A	1992	435	299	J Organomet Chem	HCAPLUS
Rodgers, R	1981	216	383	J Organomet Chem	
Roesky, P	2002	21	4756	Organometallics	HCAPLUS
Schmid, M	1997	541	3	J Organomet Chem	HCAPLUS
Schumann, H	1995	95	865	Chem Rev	HCAPLUS
Shannon, R	1976	A32	751	Acta Crystallogr, Se	HCAPLUS
Shapiro, P	2002	231	67	Coord Chem Rev	HCAPLUS
Sheldrick, G	1997			SHELXL-97, Program f	
Sheldrick, G	1997			SHELXS-97, Program f	
Smith, J	1979	173	175	J Organomet Chem	HCAPLUS
Te Velde, G	1992	99	84	Int J Quantum Chem	HCAPLUS
Te Velde, G	2001	22	931	J Comput Chem	HCAPLUS
Uffing, C	1998	17	3512	Organometallics	
Vosko, S	1990	58	1200	Can J Chem	
Ziegler, T	1979	18	1558	Inorg Chem	HCAPLUS
Ziegler, T	1979	18	1755	Inorg Chem	HCAPLUS
Ziegler, T	1977	46	1	Theor Chim Acta	HCAPLUS

L70 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:570105 HCAPLUS
DN 138:271764
TI Synthesis and characterization of organolanthanide chlorides Me2SiFlu2LnCl
AU Zhang, Wu; Cai, Yue-peng; Li, Hong-xi; Ma, Huai-zhu
CS College of Chemistry and Material Science, Anhui Normal University, Wuhu, 241000, Peop. Rep. China
SO Hecheng Huaxue (**2002**), 10(3), 268-270
CODEN: HEHUE2; ISSN: 1005-1511
PB Hecheng Huaxue Bianjibu
DT Journal
LA Chinese
OS CASREACT 138:271764
AB Five new silyl-bridged organolanthanide complexes Me2SiFlu2LnCl (Flu = fluorenyl, Ln = Yb, Sm, La, Pr, Nd) were synthesized by the reaction of LnCl3 with Me2SiFlu2Li2 in THF. These complexes were characterized by elemental analyses, IR, MS and 1H NMR spectra.

IT **334834-50-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of silyl-bridged fluorenyl lanthanide chlorides)
RN 334834-50-3 HCAPLUS
CN Neodymium, chloro[(dimethylsilylene)bis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-ylidene]]- (9CI) (CA INDEX NAME)

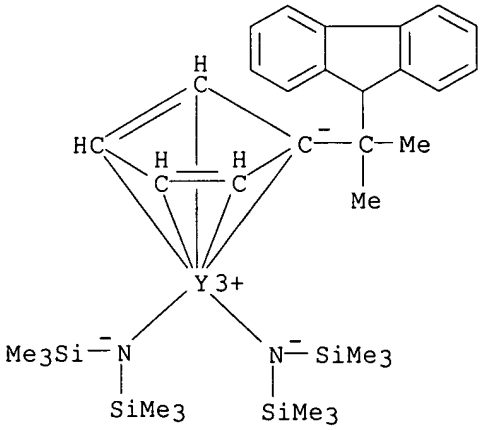


L70 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:457779 HCAPLUS
DN 137:169594
TI Amine Elimination Reactions between Homoleptic Silylamide Lanthanide Complexes and an Isopropylidene-Bridged Cyclopentadiene-Fluorene System
AU Dash, Aswini K.; **Razavi, Abbas**; Mortreux, Andre; Lehmann, Christian W.; **Carpentier, Jean-Francois**
CS Laboratoire Organometalliques et Catalyse, UMR 6509 CNRS-Universite de Rennes 1, Rennes, 35042, Fr.
SO Organometallics (**2002**), 21(15), 3238-3249
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:169594
AB Amine elimination to introduce the isopropylidene-bridged unsym. ligand C5H5-CMe2-C13H9 (CpH-CMe2-FluH) onto group III-metal centers (Y, La, Nd) to give the neutral, ate-complex-free ansa-lanthanidocenes is discussed. The reactions of homoleptic Ln[N(SiMe3)2]3 (Ln = Y (1), La (2), Nd (3)) with CpH-CMe2-FluH (4) in THF under mild conditions lead to the formation of ansa-complexes (η5,η5-Cp-CMe2-Flu)Ln(η5-Cp-CMe2-FluH) (Ln = Y (8), La (12), Nd (13)) in 70-84% isolated yields (based on 4). These reactions proceed via the rapidly formed bis(amido)lanthanide intermediates (η5-Cp-CMe2-FluH)Ln[N(SiMe3)2]2 (Ln = Y (5), La (9)), which undergo readily disproportionation/ligand redistribution reactions at 5-23° to give either a mono(amido)lanthanide complex (η5-Cp-CMe2-FluH)2Ln[N(SiMe3)2] (Ln = Y (6)) or another species

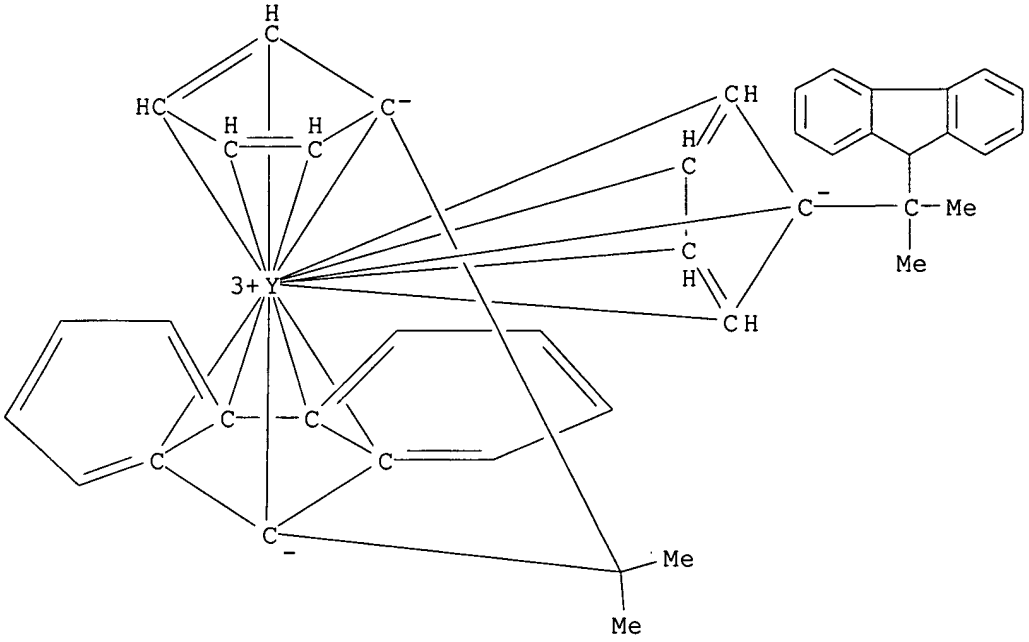
assumed to be the binuclear complex (η5-Cp-CMe2-FluH)2Ln[μ-N(SiMe3)2]2Ln[N(SiMe3)2]2 (Ln = La (10)), resp. Complexes 6 and 10 undergo an intramol. amine elimination reaction under THF reflux to yield the corresponding ansa-complexes 8 and 12, resp. The reversibility of the process was investigated in the yttrium case: complex 8 converts back to 6 in the presence of (SiMe3)2NH in toluene at 90° with 50% conversion after 12 h. The effect of a noncoordinating apolar solvent on the reaction outcome of tris(amido) complexes 1-3 with 4 was also studied using toluene, in which the low solubility presumably shifts the disproportionation equilibrium and leads to the isolation of another class of compds. Ln(η5-Cp-CMe2-FluH)3 (Ln = Y (7), La (11)) in reasonable yields. Compds. 5-12 were characterized in solution by 1D and 2D NMR techniques (1H, 13C, 1H-1H COSY, and 1H-13C HETCOR), and the solid state structures of 6 and of the mono(THF) adducts of ansa-lanthanidocenes 12 and 13 were established by x-ray diffraction studies. The latter ansa-complexes feature very narrow Cp(centroid)-Ln-Flu(centroid) bite angles (Ln = La, 103.67(1)°; Ln = Nd, 105.08(1)°).

IT **447452-98-4P 447453-02-3P 447453-03-4P 447453-05-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(amine elimination reactions between homoleptic silylamide lanthanide complexes and isopropylidene-bridged cyclopentadiene-fluorene system)

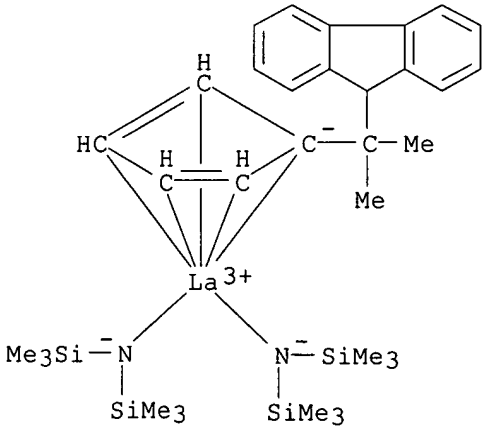
RN 447452-98-4 HCAPLUS
CN Yttrium, [(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]bis[1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]-(9CI) (CA INDEX NAME)



RN 447453-02-3 HCAPLUS
CN Yttrium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]- (9CI) (CA INDEX NAME)



RN 447453-03-4 HCAPLUS
CN Lanthanum, [(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]bis[1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]-(9CI) (CA INDEX NAME)



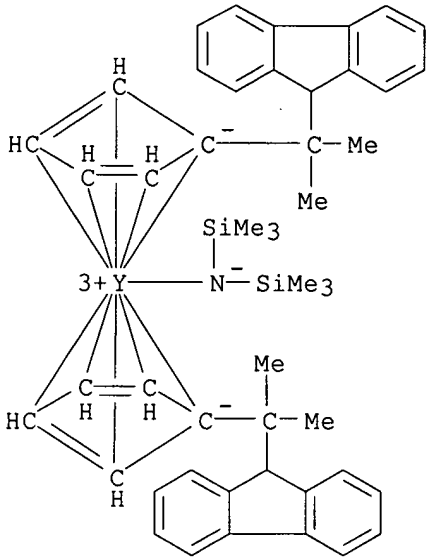
RN 447453-05-6 HCAPLUS
CN Lanthanum, bis[(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]bis[μ-[1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]]bis[1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]di- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **447452-99-5DP**, agostic bond
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(crystal structure; amine elimination reactions between homoleptic

silylamide lanthanide complexes and isopropylidene-bridged cyclopentadiene-fluorene system)

RN 447452-99-5 HCAPLUS

CN Yttrium, bis[(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl][1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]- (9CI) (CA INDEX NAME)

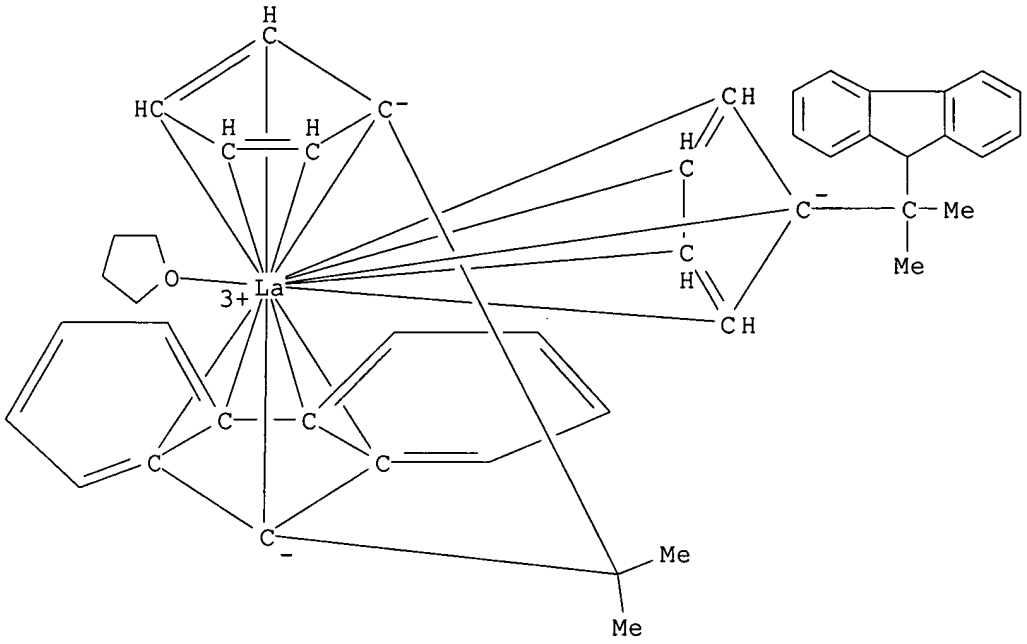


IT **447453-17-0P 447453-21-6P 447453-25-0P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN 447453-17-0 HCAPLUS

CN Lanthanum, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl](tetrahydrofuran)- (9CI) (CA INDEX NAME)



RN 447453-21-6 HCAPLUS
CN Lanthanum, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl](tetrahydrofuran)-, compd. with tetrahydrofuran (2:3) (9CI) (CA INDEX NAME)

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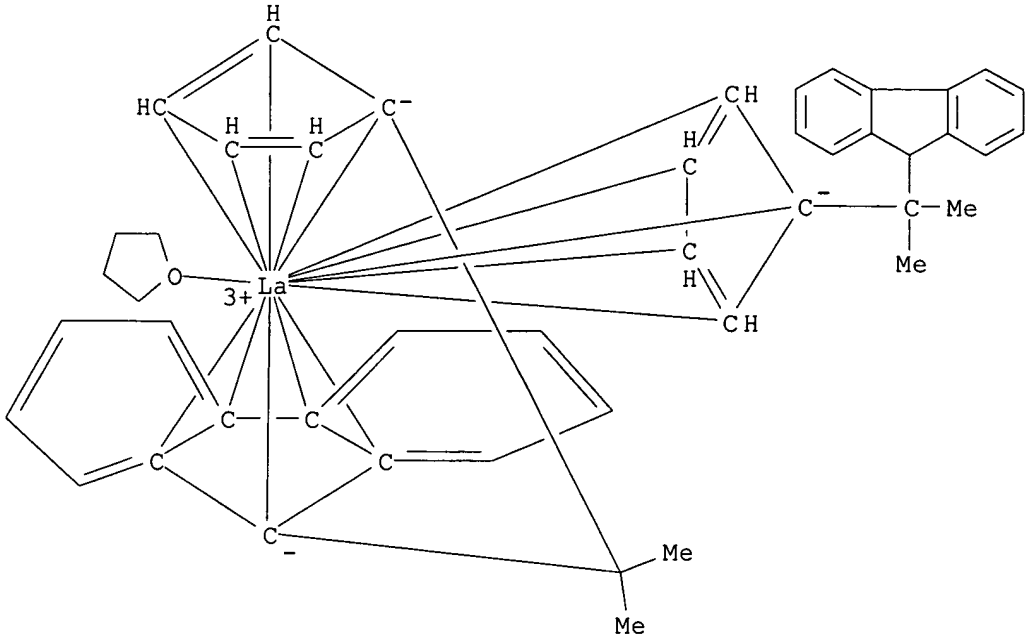
CRN 447453-17-0
CMF C46 H45 La O
CCI CCS



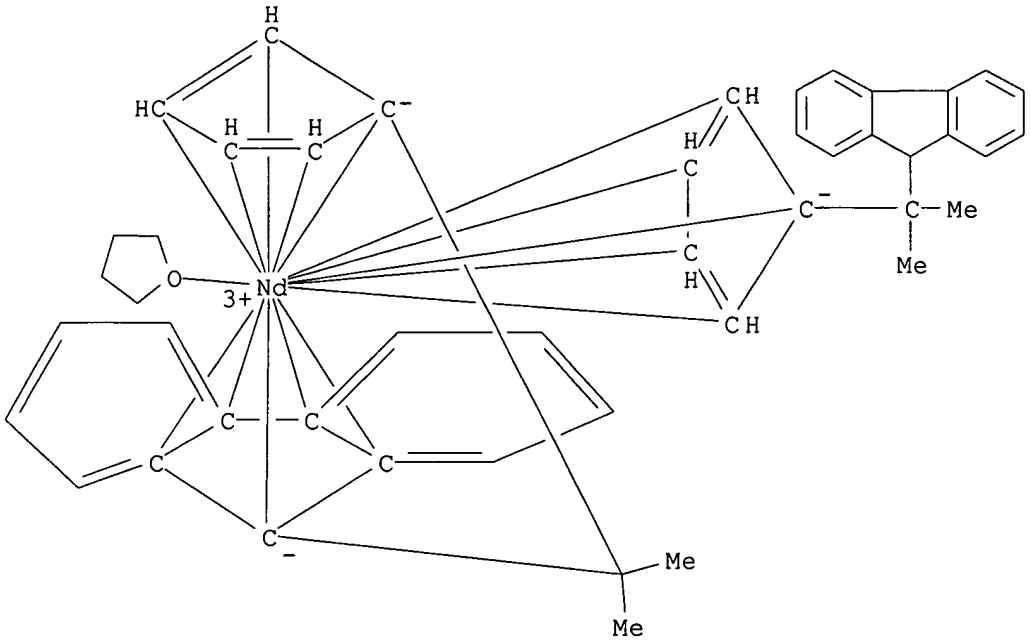
CM 2

CRN 109-99-9
CMF C4 H8 O

RN 447453-25-0 HCAPLUS
CN Neodymium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl](tetrahydrofuran)-, compd. with tetrahydrofuran (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 447453-12-5
CMF C46 H45 Nd O
CCI CCS

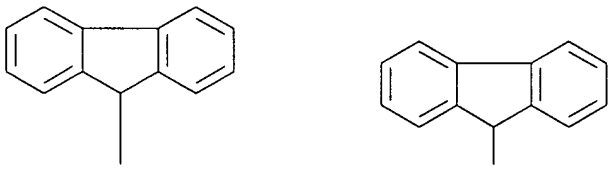


CM 2

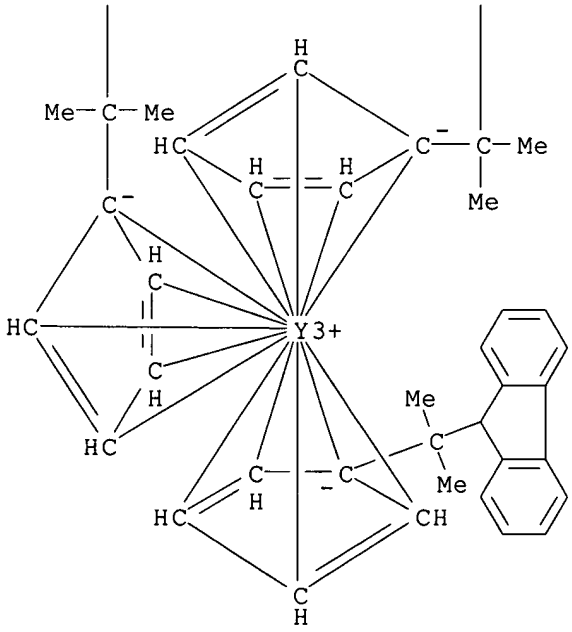
CRN 109-99-9
CMF C4 H8 O

IT **447453-00-1P 447453-08-9P 447453-10-3P**
447453-12-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 447453-00-1 HCAPLUS
CN Yttrium, tris[(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A

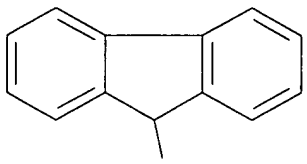


PAGE 2-A



RN 447453-08-9 HCAPLUS
CN Lanthanum, tris[(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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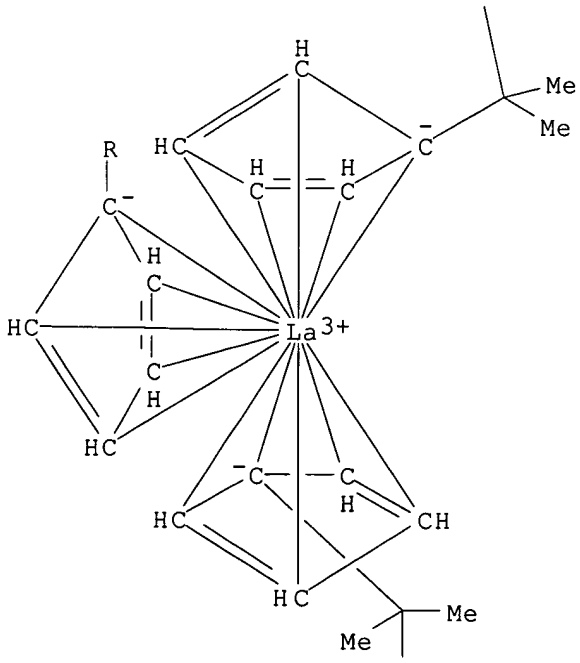

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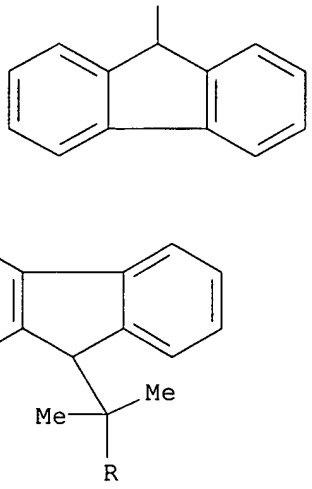
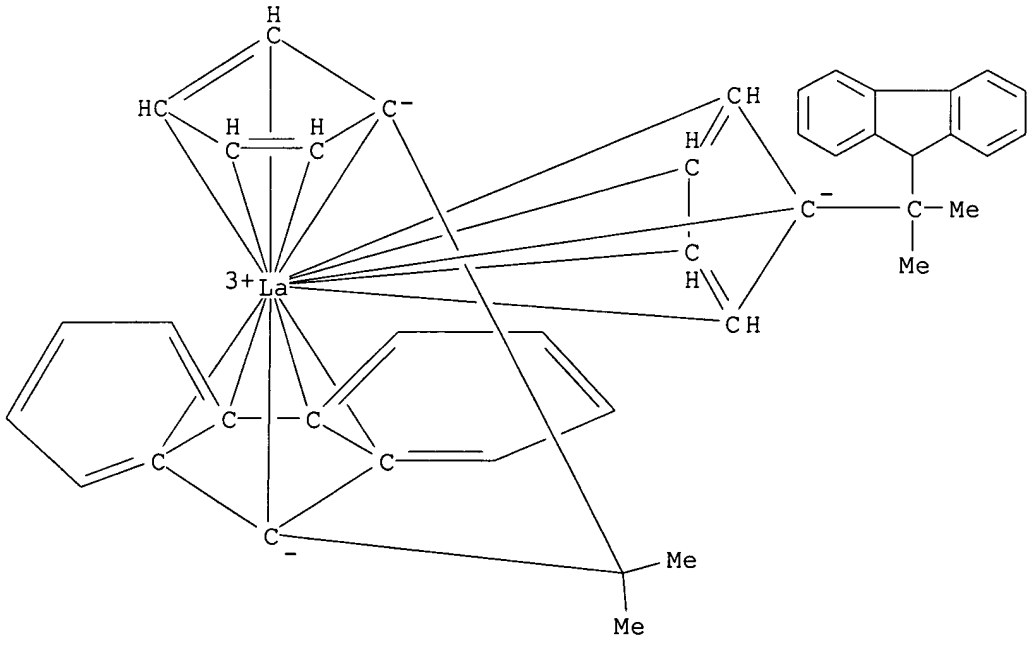
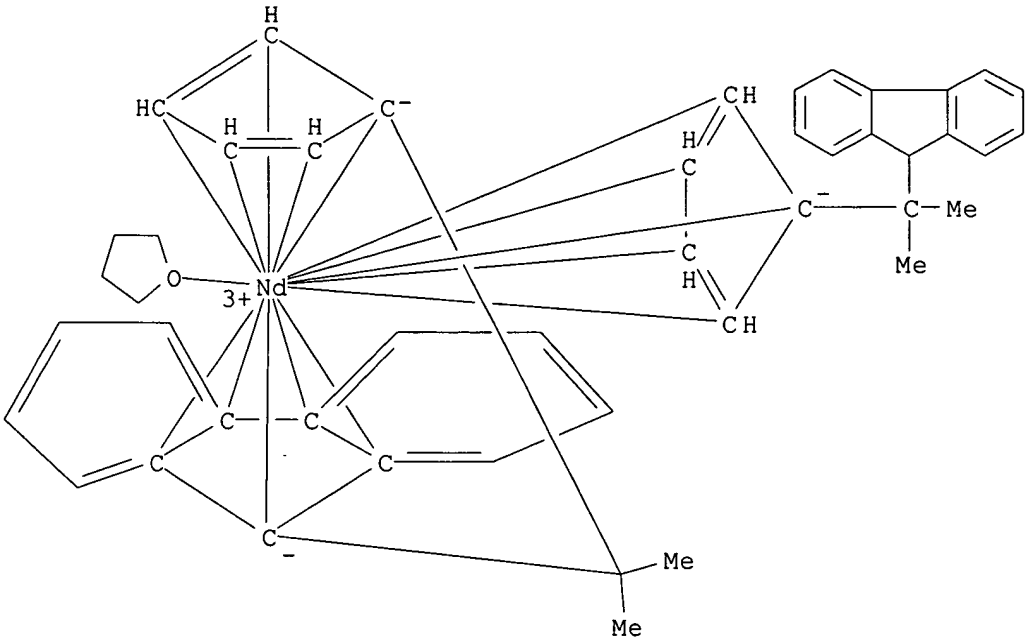


RN 447453-10-3 HCAPLUS
CN Lanthanum, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]- (9CI) (CA INDEX NAME)



RN 447453-12-5 HCAPLUS
CN Neodymium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl](tetrahydrofuran)- (9CI) (CA INDEX NAME)



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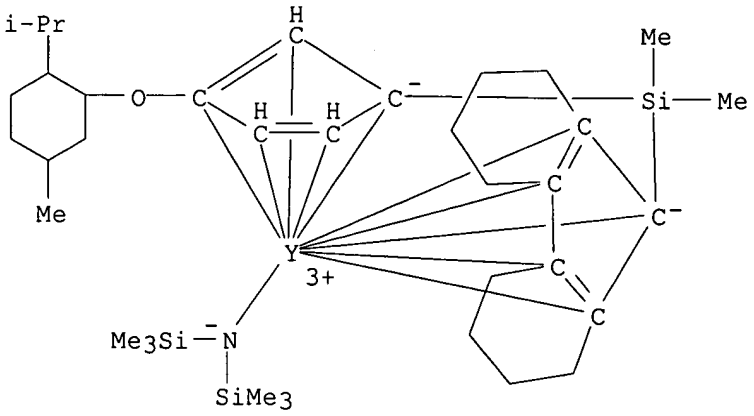
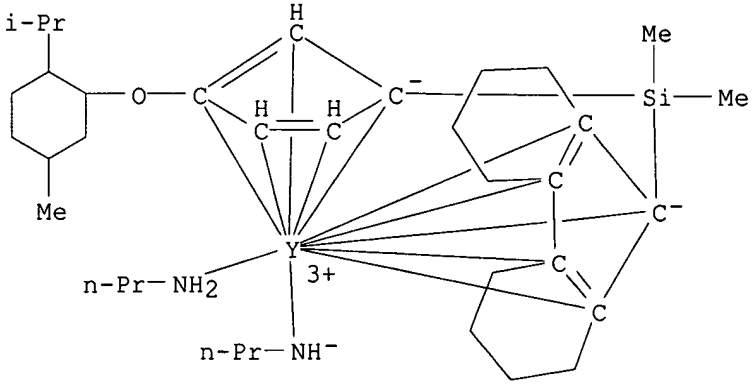
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Akhnoukh, T	1991	408	47	J Organomet Chem	HCAPLUS
Alt, H	2000	100	1205	Chem Rev	HCAPLUS
Alt, H	1998	27	323	Chem Soc Rev	HCAPLUS
Anwander, R	1996	2	866	Applied Homogeneous	HCAPLUS
Anwander, R	1996	179	1	Top Curr Chem	HCAPLUS
Anwander, R	1996	179	33	Top Curr Chem	HCAPLUS
Anwander, R	1999	2	1	Top Organomet Chem	HCAPLUS
Avent, A	1989	111	3423	J Am Chem Soc	HCAPLUS
Ballard, D	1978		994	J Chem Soc, Chem Com	HCAPLUS
Barbier-Baudry, D	1998		1721	Eur J Inorg Chem	
Barbier-Baudry, D	2000	609	21	J Organomet Chem	HCAPLUS
Bochmann, M	1996		255	J Chem Soc, Dalton T	HCAPLUS
Bogaert, S	2000	201	1813	Macromol Chem Phys	HCAPLUS
Bogaert, S	2001	20	199	Organometallics	HCAPLUS
Boncella, J	1985	4	205	Organometallics	HCAPLUS
Booj, M	1989	364	79	J Organomet Chem	
Bordwell, F	1983	105	6188	J Am Chem Soc	HCAPLUS
Bradley, D	1972		349	J Chem Soc, Chem Com	HCAPLUS
Bradley, D	1973		1021	J Chem Soc, Dalton T	HCAPLUS
Brintzinger, H	1995	34	1143	Angew Chem, Int Ed E	HCAPLUS
Britovsek, G	1999	38	428	Angew Chem, Int Ed	HCAPLUS
Burger, B	1990	112	1566	J Am Chem Soc	HCAPLUS
Chen, E	2000	100	1391	Chem Rev	HCAPLUS
Coughlin, E	1992	114	7606	J Am Chem Soc	HCAPLUS
Coughlin, E	1992	33	1226	Polym Prepr, Am Chem	HCAPLUS
Den Haan, K	1986	5	1726	Organometallics	HCAPLUS
Drago, D	2000	19	1802	Organometallics	HCAPLUS
Edelmann, F	1996	179	247	Top Curr Chem	HCAPLUS
Eppinger, J	2000	122	3080	J Am Chem Soc	HCAPLUS
Evans, W	1983	104	2008	J Am Chem Soc	

Evans, W	1990	112	2314	J Am Chem Soc	HCAPLUS
Evans, W	1985	4	554	Organometallics	HCAPLUS
Evans, W	1993	12	2618	Organometallics	HCAPLUS
Evans, W	1994	13	1281	Organometallics	HCAPLUS
Ewen, J	1988	110	6255	J Am Chem Soc	HCAPLUS
Fedushkin, I	2001	40	561	Angew Chem, Int Ed	HCAPLUS
Gilbert, A	1999	18	2125	Organometallics	HCAPLUS
Gilchrist, J	1996	118	12021	J Am Chem Soc	HCAPLUS
Halterman, R	2000	604	12	J Organomet Chem	HCAPLUS
Herrmann, W	1997	16	1813	Organometallics	HCAPLUS
Hitchcock, P	2000	19	3420	Organometallics	HCAPLUS
Hock, N	1986	25	738	Angew Chem, Int Ed E	
Hou, Z	2001	20	3323	Organometallics	HCAPLUS
Ihara, E	1996	197	1909	Macromol Chem Phys	HCAPLUS
Ihara, E	1998	17	3945	Organometallics	HCAPLUS
Ihara, E	2001	20	1752	Organometallics	HCAPLUS
Jeske, G	1985	107	8091	J Am Chem Soc	HCAPLUS
Jeske, G	1985	107	8103	J Am Chem Soc	HCAPLUS
Jordan, R	1991	32	325	Adv Organomet Chem	HCAPLUS
Kaminsky, W	1998		1413	J Chem Soc, Dalton T	HCAPLUS
Khvostov, A	1998	571	243	J Organomet Chem	HCAPLUS
Khvostov, A	1998	564	5	J Organomet Chem	HCAPLUS
Khvostov, A	1999	584	164	J Organomet Chem	HCAPLUS
Khvostov, A	1999	589	222	J Organomet Chem	HCAPLUS
Klooster, W	1999	121	1381	J Am Chem Soc	HCAPLUS
Kowala, C	1976	B32	820	Acta Crystallogr, Se	HCAPLUS
Kowala, C	1974		993	J Chem Soc, Chem Com	HCAPLUS
Lauher, J	1976	98	1729	J Am Chem Soc	HCAPLUS
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Lee, M	1999	18	5124	Organometallics	HCAPLUS
March, J	1992			Advanced Organic Che	
Mitchell, J	1996	118	1045	J Am Chem Soc	HCAPLUS
Molander, G	1998	11	237	Chemtracts:Org Chem	HCAPLUS
Molander, G	1999	2	119	Top Organomet Chem	HCAPLUS
Mu, Y	1995	73	2233	Can J Chem	HCAPLUS
Piers, W	1990		74	Synlett	HCAPLUS
Qian, C	1999		3283	J Chem Soc, Dalton T	HCAPLUS
Qian, C	2000	19	4134	Organometallics	HCAPLUS
Qiao, K	1993	456	185	J Organomet Chem	HCAPLUS
Razavi, A	1992	435	299	J Organomet Chem	HCAPLUS
Razavi, A	1993	445	111	J Organomet Chem	HCAPLUS
Razavi, A	1993	459	117	J Organomet Chem	HCAPLUS
Razavi, A	2001	621	267	J Organomet Chem	HCAPLUS
Rodgers, R	1981	216	383	J Organomet Chem	
Rossmanith, K	1965	96	602	Monatsh Chem	HCAPLUS
Schumann, H	1995	95	865	Chem Rev	HCAPLUS
Shannon, R	1976	A32	751	Acta Crystallogr, Se	HCAPLUS
Shannon, R	1969	B25	925	Acta Crystallogr, Se	
Shannon, R	1970	B26	1046	Acta Crystallogr, Se	
Shapiro, P	1994	116	4623	J Am Chem Soc	HCAPLUS
Shapiro, P	1990	9	867	Organometallics	HCAPLUS
Sheldrick, G	1997			SHELXL-97, Program f	
Sheldrick, G	1997			SHELXS-97, Program f	
Tian, S	1999	18	2568	Organometallics	HCAPLUS
Tilley, T	1984	23	2271	Inorg Chem	HCAPLUS
van der Heijden, H	1989	8	255	Organometallics	HCAPLUS
Watson, P	1983	212	459	ACS Symp Ser	HCAPLUS
Watson, P	1985	18	51	Acc Chem Res	HCAPLUS
Westernhausen, M	1995	621	837	Z Anorg Allg Chem	
Yan, P	1990	391	313	J Organomet Chem	HCAPLUS

L70 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:912364 HCAPLUS
DN 136:183902
TI "Widening the Roof": Synthesis and Characterization of New Chiral C1-Symmetric Octahydrofluorenyl Organolanthanide Catalysts and Their Implementation in the Stereoselective Cyclizations of Aminoalkenes and Phosphinoalkenes
AU Douglass, Michael R.; Ogasawara, Masamichi; Hong, Sukwon; Metz, Matthew V.; Marks, Tobin J.
CS Department of Chemistry, Northwestern University, Evanston, IL, 60208-3113, USA
SO Organometallics (**2002**), 21(2), 283-292
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 136:183902
AB New chiral C1-sym. organolanthanide ansa-metallocene catalysts Me2Si(OHF)(CpR*)LnN(TMS)2 (OHF = η5-octahydrofluorenyl; Cp = η5-C5H3; R* = (-)-menthyl; Ln = Sm, Y, Lu; TMS = SiMe3) were synthesized, characterized, and implemented in the enantioselective and diastereoselective cyclizations of aminoalkenes and phosphinoalkenes. Me2Si(OHF)(CpR*)LnCl2-Li(DME)2+ catalyst precursors can be prepared in up to .apprx.90% diastereomeric purity and then converted into the corresponding amido catalysts, which can be isolated in .apprx.100% diastereomeric purity after recrystn. The catalyst (S)-Me2Si(OHF)(CpR*)YN(TMS)2 was crystallog. characterized. The activity of these catalysts for the hydroamination/cyclization of aminoalkenes and for the hydrophosphination/cyclization of phosphinoalkenes is described. Enantioselectivites ≤67% were obtained in hydroamination, and diastereoselectivities of ≤96% were obtained in hydrophosphination.
IT **400608-55-1P**
RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(crystal structure, epimerization mechanism; preparation and catalyst for stereoselective hydroamination or hydrophosphination and cyclization of aminoalkenes and phosphinoalkenes, resp.)
RN 400608-55-1 HCAPLUS
CN Yttrium, [η10-[(1S)-3-[[(1R,2S,5R)-5-methyl-2-(1-methylethyl)cyclohexyl]oxy]-2,4-cyclopentadien-1-ylidene](dimethylsilylene)(1,2,3,4,5,6,7,8-octahydro-9H-fluoren-9-ylidene)][1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]- (9CI) (CA INDEX NAME)



IT **400608-60-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 400608-60-8 HCAPLUS
CN Yttrium, [η10-[(1S)-3-[[(1R,2S,5R)-5-methyl-2-(1-methylethyl)cyclohexyl]oxy]-2,4-cyclopentadien-1-ylidene](dimethylsilylene)(1,2,3,4,5,6,7,8-octahydro-9H-fluoren-9-ylidene)](1-propanaminato)(1-propanamine)- (9CI) (CA INDEX NAME)



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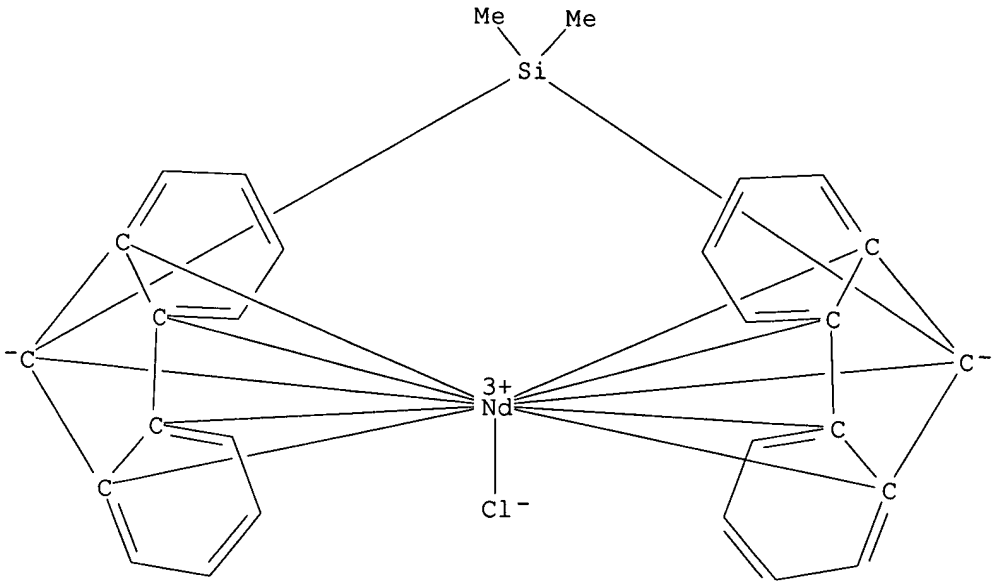
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	2000	6	323	Acc Chem Res, (Speci	
Arredondo, V	1998	120	4871	J Am Chem Soc	HCAPLUS
Arredondo, V	1999	121	3633	J Am Chem Soc	HCAPLUS
Arredondo, V	1999	10	1949	Organometallics	
Baechler, R	1970	92	3090	J Am Chem Soc	HCAPLUS
Bijpost, E	1995	95	121	J Mol Catal	HCAPLUS
Blaser, H	1996	2	992	Applied Homogeneous	HCAPLUS
Brookhart, M	1988	36	1	Prog Inorg Chem	HCAPLUS
Burk, M	2000	33	363	Acc Chem Res	HCAPLUS
Burk, M	1993	115	10125	J Am Chem Soc	HCAPLUS
Burk, M	1995	117	4423	J Am Chem Soc	HCAPLUS
Burk, M	1995	117	9375	J Am Chem Soc	HCAPLUS

Burk, M	2000	19	250	Organometallics	HCAPLUS
Coughlin, E	1992	114	7607	J Am Chem Soc	
Couret, C	1984	20	81	Phosphorus Sulfur Re	HCAPLUS
Craig, J	1965	21	401	Tetrahedron	HCAPLUS
Cromer, D	1974	IV		International Tables	
Dale, J	1969	9	2543	J Org Chem	
Den Haan, K	1986	5	1726	Organometallics	HCAPLUS
Douglass, M	2000	122	1824	J Am Chem Soc	HCAPLUS
Douglass, M	2001	123	10221	J Am Chem Soc	HCAPLUS
Edelmann, F	1995	4		Comprehensive Organo	
Edelmann, F	1996	179	247	Top Curr Chem	HCAPLUS
Evans, W	1985	24	131	Adv Organomet Chem	HCAPLUS
Fu, P	1995	117	7157	J Am Chem Soc	HCAPLUS
Gagne, M	1989	111	4108	J Am Chem Soc	HCAPLUS
Gagne, M	1992	114	275	J Am Chem Soc	HCAPLUS
Giardello, M	1994	116	10212	J Am Chem Soc	HCAPLUS
Giardello, M	1994	116	10241	J Am Chem Soc	HCAPLUS
Giardello, M	1995	117	3276	J Am Chem Soc	HCAPLUS
Gilbert, A	1999	18	2125	Organometallics	HCAPLUS
Grubbs, R	1996	29	85	Acc Chem Res	HCAPLUS
Haar, C	1996	15	1765	Organometallics	HCAPLUS
Harrison, K	1992	114	9220	J Am Chem Soc	HCAPLUS
Helmchen, G	2000	33	336	Acc Chem Res	HCAPLUS
Hong, S	2001			Abstracts of Papers,	
Hoye, T	1996	61	2056	J Org Chem	HCAPLUS
Hoye, T	1996	61	8489	J Org Chem	HCAPLUS
Hultzch, K	1997	18	809	Macromol Rapid Commu	
Hultzch, K	1997	16	4845	Organometallics	
Jacobsen, E	1999	I-III		Comprehensive Asymme	
Jany, G	1997	26	554	Organometallics	
Jeske, G	1985	107	8091	J Am Chem Soc	HCAPLUS
Kirby, A	1980	17	183	Adv Phys Org Chem	HCAPLUS
Klooster, W	1999	121	1381	J Am Chem Soc	HCAPLUS
Koo, K	1999	32	981	Macromolecules	HCAPLUS
Langhans, K	1990	45b	203	Z Naturforsch	
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Leino, R	1997	546	219	J Organomet Chem	
Li, Y	1996	118	707	J Am Chem Soc	HCAPLUS
Li, Y	1996	118	9295	J Am Chem Soc	
Li, Y	1998	120	1757	J Am Chem Soc	HCAPLUS
Li, Y	1994	13	439	Organometallics	HCAPLUS
Li, Y	1996	15	3370	Organometallics	
Marks, T	1982			Comprehensive Organo	
Molander, G	1998	18	237	Chemtracts:Org Chem	
Molander, G	1992	57	6347	J Org Chem	HCAPLUS
Molander, G	1998	63	8983	J Org Chem	HCAPLUS
Molander, G	1999	64	6515	J Org Chem	HCAPLUS
Molander, G	2001	3	361	Org Lett	HCAPLUS
Molander, G	1998	17	5504	Organometallics	HCAPLUS
Muci, A	2000	41	7609	Tetrahedron Lett	HCAPLUS
Noyori, R	1994			Asymmetric Catalysis	
Obora, Y	1997	119	3745	J Am Chem Soc	HCAPLUS
Obora, Y	1997	16	2503	Organometallics	HCAPLUS
Ojima, I	2000			Catalytic Asymmetric	
Qian, C	2000	19	4134	Organometallics	HCAPLUS
Quin, L	1990	1	295	The Chemistry of Org	HCAPLUS
Rauk, A	1970	9	400	Angew Chem, Int Ed E	HCAPLUS
Rieger, B	1994	127	2417	Chem Ber	HCAPLUS
Ringdahl, B	1981	37	1659	Tetrahedron	HCAPLUS
Ripperger, H	1965	21	407	Tetrahedron	HCAPLUS

Roesky, P	1997	16	4486	Organometallics	HCAPLUS
Ryu, J	2001	3	3091	Abstracts of Papers,	HCAPLUS
Sakakura, T	1991		40	J Chem Soc, Chem Com	HCAPLUS
Schaverien, C	1994	36	283	Adv Organomet Chem	HCAPLUS
Schellenberg, J	2000	38	2428	J Polym Sci, Polym C	HCAPLUS
Schumann, H	1995	95	865	Chem Rev	HCAPLUS
Schumann, H	1998	559	181	J Organomet Chem	HCAPLUS
Shannon, R	1976	A32	751	Acta Crystallogr	HCAPLUS
Sheldrick, G	1997			SHELXL-97	
Sheldrick, G	1997			SHELXS-97	
Stern, D	1990	112	9558	J Am Chem Soc	HCAPLUS
Watson, P	1982	104	337	J Am Chem Soc	HCAPLUS
Yasuda, H	1995	196	2417	Macromol Chem Phys	HCAPLUS
Yoder, J	1998	17	4946	Organometallics	HCAPLUS

L70 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:566437 HCAPLUS
DN 135:273431
TI Investigation of ethylene/butadiene copolymers microstructure by 1H and 13C NMR
AU Llauro, Marie France; Monnet, Christiane; Barbotin, Fanny; Monteil, Vincent; Spitz, Roger; Boisson, Christophe
CS Laboratoire de Chimie et Procedes de Polymerisation, CNRS-CPE Lyon, Villeurbanne, 69616, Fr.
SO Macromolecules (**2001**), 34(18), 6304-6311
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English
AB Ethylene and butadiene are copolymd. with neodymocene catalysts. In this paper, a complete 1H and 13C NMR anal. of the copolymers is reported for the first time. The results of this study show that the microstructure depends on the cyclopentadienyl ligands of the catalyst. The presence of the trans-1,2-cyclohexane structure, formed by intramol. cyclization, is detected and fully investigated by 2D NMR 1H/13C direct and long-range correlation.
IT **334834-50-3**
RL: CAT (Catalyst use); USES (Uses)
(in neodymocene catalysts for polymerization of ethylene with butadiene)
RN 334834-50-3 HCAPLUS
CN Neodymium, chloro[(dimethylsilylene)bis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-ylidene]]- (9CI) (CA INDEX NAME)



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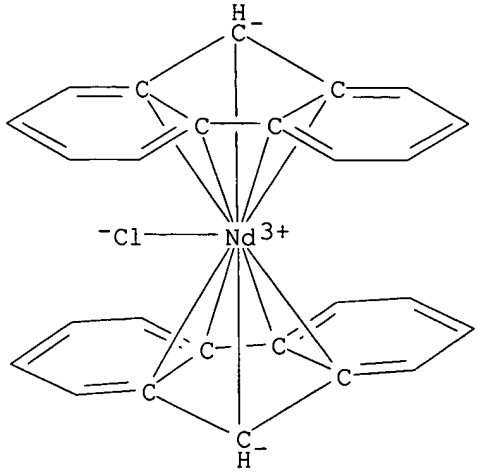
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Arnold, M	1991	192	1017	Makromol Chem	HCAPLUS
Barbotin, F	2000	33	8521	Macromolecules	HCAPLUS
Barbotin, F	1999			Ph D Thesis, Lyon 1	
Bruzzone, M	1978	179	2173	Makromol Chem	HCAPLUS
Cesca, S	1981	4	569	Transition metal cat	
Desmurs, P	1999	2	375	C R Acad Sci Paris I	
Furukawa, J	1972	23	189	Angew Makromol Chem	HCAPLUS
Furukawa, J	1978	51	600	Rubber Chem Technol	HCAPLUS
Galimberti, M	1991	192	2591	Makromol Chem	HCAPLUS
Ibbett, R	1993			NMR Spectroscopy of	
Igai, S	1997			JP 9316118	
Kalinowski, H	1988		112	Carbon-13 NMR Spectr	
Kaminsky, W	1989	190	515	Makromol Chem	HCAPLUS
Kaminsky, W	1986	4	103	Makromol Chem, Macro	HCAPLUS
Kaulbach, R	1995	226	101	Angew Makromol Chem	HCAPLUS
Kim, I	2000	38	1590	J Polym Sci A: Polym	HCAPLUS
Kudashev, R	1989	308	1398	Dokl Phys Chem	HCAPLUS
Moritani, T	1977	10	532	Macromolecules	HCAPLUS
Mulhaupt, R	1988	26	2487	J Polym Sci, Part, A	HCAPLUS
Naga, N	1999	32	1348	Macromolecules	HCAPLUS
Natta, G	1964	79	161	Makromol Chem	HCAPLUS
Nishiyama, T	1999			DE 19909721	HCAPLUS
Resconi, L	1990	112	4953	J Am Chem Soc	HCAPLUS
Robert, P	1993	66	261	Makromol Chem, Macro	HCAPLUS
Soga, K	1982	8	473	Polym Bull	HCAPLUS
Sun, L	1988	26	2113	J Polym Sci, Part B	HCAPLUS
Tiley, T	1981	20	3267	Inorg Chem	

L70 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:279463 HCAPLUS
DN 134:296245
TI Catalytic system based on a lanthanide metal complex, process for its

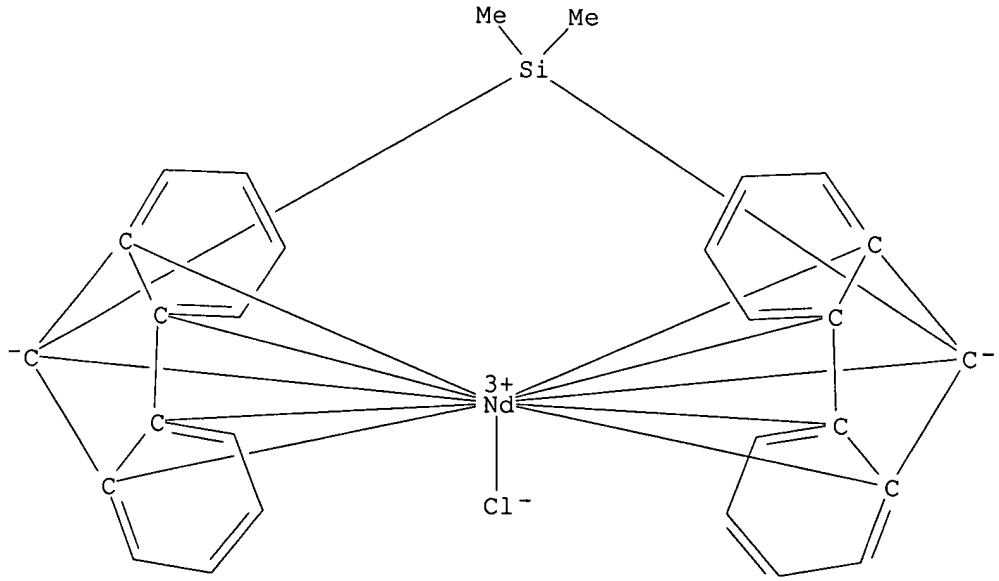
preparation and that of an ethylene-conjugated diene copolymer
IN Barbotin, Fanny
PA Societe De Technologie Michelin, Fr.; Michelin Recherche Et Technique S.A.; **ATOFINA**
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT **Patent**
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1092731	A1	20010418	EP 2000-121834	20001006 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	FR 2799468	A1	20010413	FR 1999-12798	19991012 <--
	FR 2799468	B1	20060428		
	CA 2321362	AA	20010412	CA 2000-2321362	20001010 <--
	BR 2000004778	A	20010529	BR 2000-4778	20001011 <--
	CN 1310188	A	20010829	CN 2000-134404	20001012 <--
	JP 2001294607	A2	20011023	JP 2000-350288	20001012 <--
	US 6569799	B1	20030527	US 2000-689464	20001012 <--
	US 2003004287	A1	20030102	US 2002-154631	20020523 <--
	US 6800705	B2	20041005		
PRAI	FR 1999-12798	A	19991012 <--		
	US 2000-689464	A3	20001012 <--		

OS MARPAT 134:296245
AB Catalysts for manufacture of title copolymers with controlled microstructure of the units formed from the diene contain Cp1(Cp2)LnX [I, Ln = lanthanide metal, X = halo, Cp1, Cp2 = (substituted) cyclopentadienyl or fluorenyl] or a complex similar to I with Cp1 bridged to Cp2 by a Group IVA metal or MR2 (R = C1-20 alkyl, M = Group IVA metal) and cocatalyst selected from alkylmagnesium, alkyllithium, alkylaluminum, or Grignard reagent. A typical I was manufactured by reaction of 20 mmol cyclopentadienyltrimethylsilane 3 h with 20 mmol BuLi in heptane, and complexation of 8 mmol intermediate 48 h with 4 mmol NdCl3 in THF.
IT **188405-00-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(catalyst precursor; catalysts containing lanthanide metal complexes for manufacture of ethylene-conjugated diene copolymers)
RN 188405-00-7 HCAPLUS
CN Neodymium, chlorobis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-yl]- (9CI) (CA INDEX NAME)



IT **334834-50-3P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(catalysts containing lanthanide metal complexes for manufacture of ethylene-conjugated diene copolymers)
RN 334834-50-3 HCAPLUS
CN Neodymium, chloro[(dimethylsilylene)bis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-ylidene]]- (9CI) (CA INDEX NAME)



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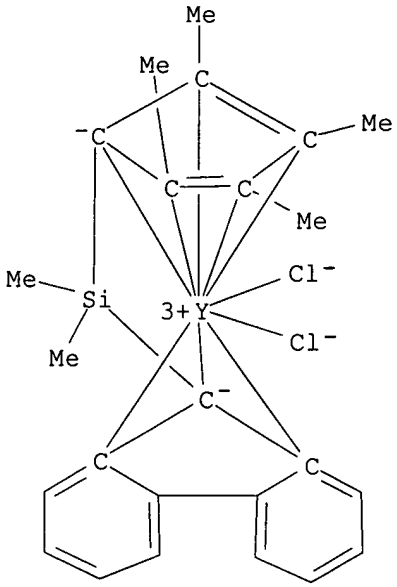
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Cui	1998	40	729	POLYM BULL (BERLIN)	HCAPLUS
Marks, T	1989			US 4801666 A	HCAPLUS
Pettijohn, T	1992			US 5109085 A	HCAPLUS

L70 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:699678 HCAPLUS
DN 132:64345
TI The First Fluorenyl ansa-Yttrocene Complexes: Synthesis, Structures, and Polymerization of Methyl Methacrylate
AU Lee, Min Hyung; Hwang, Jeong-Wook; Kim, Youngjo; Kim, Jindong; Han, Yonggyu; Do, Youngkyu
CS Department of Chemistry and Center for Molecular Science, Korea Advanced Institute of Science and Technology, Taejon, 305-701, S. Korea
SO Organometallics (**1999**), 18(24), 5124-5129
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
AB A novel Cs-sym. yttrocene complex, ansa-Me2Si(η3-Flu)(η5-Cp')YCl2Li(OEt2)2 (3; Flu = C13H8, fluorenyl; Cp' = C5Me4), was prepared via a salt metathesis reaction from anhydrous YCl3 and the dilithium salt of the ligand ansa-Me2Si(FluH)(Cp'H). Treatment of 3 with NaN(SiMe3)2 gave the corresponding bis(trimethylsilyl)amide derivative ansa-Me2Si(Flu)(η5-Cp')YN(SiMe3)2 (4). The x-ray structure of 3 reveals unusual η3-fluorenyl coordination to the Y3+ ion. In 4, the Y-Flu bonding being partially slipped toward η3 from η5, π-dative bonding nature in the Y-N bond and a direct interaction of the Y atom with one Me group of the N(SiMe3)2 fragment are present. Both compds. constitute the 1st examples of structurally characterized fluorenyl ansa-yttrocenes. The neutral compound 4 is active for the polymerization of Me methacrylate (MMA) in toluene, affording iso-rich poly(MMA)s.
IT **253305-31-6P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(crystal structure; preparation, structure and polymerization catalytic activity of
fluorenyl ansa-yttrocene complexes)
RN 253305-31-6 HCAPLUS
CN Lithium(1+), bis[1,1'-oxybis[ethane]]-, dichloro[η8-9H-fluoren-9-ylidene(dimethylsilylene)(2,3,4,5-tetramethyl-2,4-cyclopentadien-1-ylidene)]yttrate(1-) (9CI) (CA INDEX NAME)

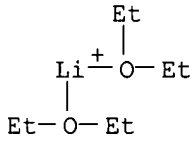
CM 1

CRN 253305-30-5
CMF C24 H26 Cl2 Si Y
CCI CCS

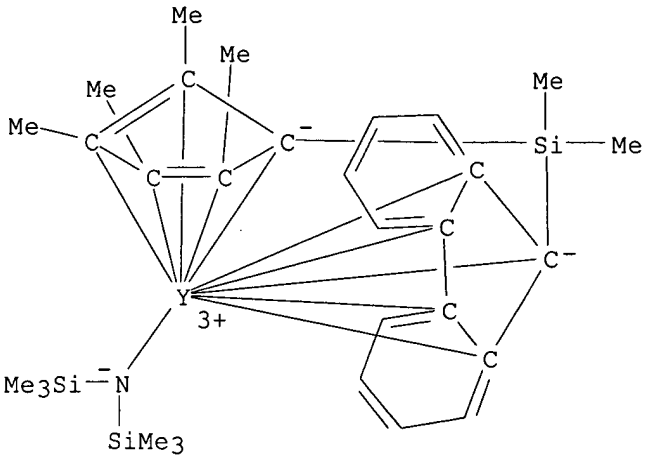


CM 2

CRN 78127-97-6
CMF C8 H20 Li O2
CCI CCS



IT **253305-32-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; preparation, structure and polymerization catalytic activity of
fluorenyl ansa-yttrocene complexes)
RN 253305-32-7 HCAPLUS
CN Yttrium, [η10-9H-fluoren-9-ylidene(dimethylsilylene)(2,3,4,5-tetramethyl-2,4-cyclopentadien-1-ylidene)][1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]- (9CI) (CA INDEX NAME)



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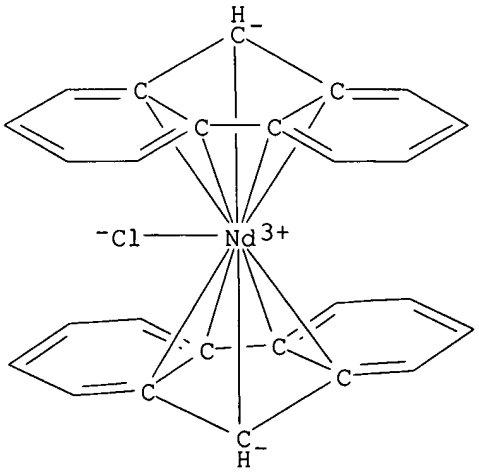
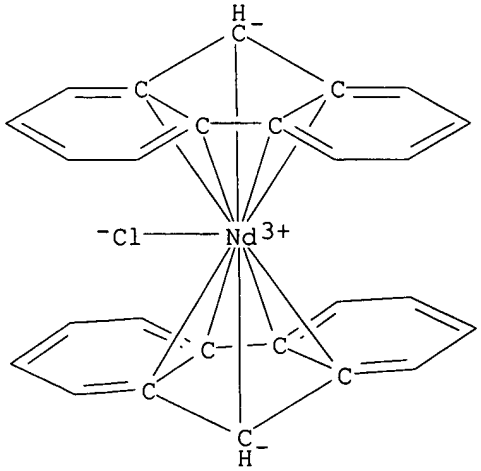
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Barnhart, D	1993	115	8461	J Am Chem Soc	HCAPLUS
Brooks, J	1972	94	7339	J Am Chem Soc	HCAPLUS
Chen, Y	1995	497	1	J Organomet Chem	HCAPLUS
Christopher, J	1997	16	3044	Organometallics	HCAPLUS
den Haan, K	1986	5	1726	Organometallics	HCAPLUS
den Haan, K	1986	5	1726	Organometallics	HCAPLUS
Evans, W	1988	27	575	Inorg Chem	HCAPLUS
Evans, W	1995	34	5927	Inorg Chem	HCAPLUS
Evans, W	1993	12	2618	Organometallics	HCAPLUS
Evans, W	1994	13	1281	Organometallics	HCAPLUS
Ewen, J	1988	110	6255	J Am Chem Soc	HCAPLUS
Ewen, J	1995		99	Ziegler Catalysts	HCAPLUS
Giardello, M	1994	116	10212	J Am Chem Soc	HCAPLUS
Giardello, M	1994	116	10212	J Am Chem Soc	HCAPLUS
Heijden, H	1989	8	255	Organometallics	
Herrmann, W	1997	16	1813	Organometallics	HCAPLUS
Herrmann, W	1997	16	1813	Organometallics	HCAPLUS
Inoe, N	1993			JP 05059077 A2	HCAPLUS
Konemann, M	1997	119	11155	J Am Chem Soc	
Kowala, C	1976	B32	820	Acta Crystallogr	HCAPLUS
Kowala, C	1974		993	J Chem Soc Chem Comm	HCAPLUS
Lauher, J	1976	98	1729	J Am Chem Soc	HCAPLUS
Lee, L	1994	33	5302	Inorg Chem	HCAPLUS
Lee, M	1998	561	37	J Organomet Chem	HCAPLUS
MoleN	1994			An Interactive Struc	
Mosges, G	1992	11	1769	Organometallics	
Mu, Y	1995	73	2233	Can J Chem	HCAPLUS
Razavi, A	1997	115	129	J Mol Catal A: Chem	HCAPLUS
Razavi, A	1995		111	Ziegler Catalysts	HCAPLUS
Resconi, L	1998	120	2308	J Am Chem Soc	HCAPLUS
Resconi, L	1996	15	998	Organometallics	HCAPLUS
Rieger, B	1994	13	647	Organometallics	HCAPLUS
Rybakova, L	1981		1995	Bull Acad Sci USSR D	
Rybakova, L	1981		2415	Izv Akad Nauk SSSR S	HCAPLUS
Schumann, H	1995	496	233	J Organomet Chem	HCAPLUS
Sharma, R	1987	64	506	J Indian Chem Soc	HCAPLUS
Sheldrick, G	1993			SHELXL: Program for	

Sigalov, A	1983		833	Bull Acad Sci USSR D	
Sigalov, A	1983		918	Izv Akad Nauk SSSR S	HCAPLUS
Stern, D	1990	112	9558	J Am Chem Soc	HCAPLUS
Tilley, T	1984	23	2271	Inorg Chem	HCAPLUS
Westernhausen, M	1995	621	837	Z Anorg Allg Chem	
Yoder, J	1998	17	4946	Organometallics	HCAPLUS

L70 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:421892 HCAPLUS
DN 129:54646
TI Preliminary investigations on polymerization catalysts composed of lanthanocene and methyl aluminoxane
AU Cui, Li Qiang; Ba, Xiao Wei; Teng, Hong Xiang; Ying, Lai Qiang; Li, Ke Chang; Jin, Ying Tai
CS Changchun Institute Applied Chemistry, Chinese Academy Sciences, Changchun, 130022, Peop. Rep. China
SO Polymer Bulletin (Berlin) (**1998**), 40(6), 729-734
CODEN: POBUDR; ISSN: 0170-0839
PB Springer-Verlag
DT Journal
LA English
AB The polymerization of butadiene (Bd), isoprene (Ip), and styrene (St) was examined using the 6 catalyst systems composed of lanthanocene, (C5H9Cp)2NdCl (I), (C5H9Cp)2SmCl (II), (MeCp)2SmOAr (III), (Ind)2NdCl, Me2Si(Ind)2NdCl (IV), and (Flu)2NdCl, and Me aluminoxane (MAO) resp. All of them can be used to form polyisoprene with mol. wts. of 1000- 10,000 and cis-1,4-unit contents of 41-47%. I, II, and III of them can be also used to form polybutadiene with mol. wts. of 10,000-20,000 and cis-1,4-unit contents of 62-78%. In addition, the catalysts from II to IV are still active for St polymerization and
II
of them gives a syndio-rich random polystyrene. It is noteworthy that II and III are active for homopolymn. of Bd, Ip, and St in the same polymerization condition.
IT **188405-00-7**
RL: CAT (Catalyst use); USES (Uses)
(properties of lanthanocene catalysts for polymerization of butadiene or isoprene or styrene)
RN 188405-00-7 HCAPLUS
CN Neodymium, chlorobis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-yl]- (9CI) (CA INDEX NAME)



L70 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:219311 HCAPLUS
DN 126:225597
TI Study on polymerization catalysts composed of lanthanocene and methylaluminoxane
AU Cui, Liqiang; Jin, Yingtai; Sun, Junquan; Li, Kechang; Ba, Xiaowei; Teng, Hongxiang
CS Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, 130022, Peop. Rep. China
SO Hecheng Xiangjiao Gongye (**1997**), 20(2), 79-82
CODEN: HXGOEA; ISSN: 1000-1255
PB Lanzhou Huaxue Gongye Gongsi Huagong Yanjiuyuan
DT Journal
LA Chinese
AB Polymns. of butadiene, isoprene, and styrene were carried out using six catalyst systems composed of lanthanocene, (C5H9Cp)2NdCl (I), (C5H9Cp)2SmCl (II), (MeCp)2SmOAr' (III, OAr' is p-methyl-2,6-di-tert-butylphenoxy) (Ind)2NdCl, Me2Si(Ind)2NdCl and (Flu)2NdCl, with methylaluminoxane (MAO) resp. All of catalysts could be used to obtain polyisoprene with relative mol. weight of 1000-10,000 and cis-1,4-unit content of 41-47%. I, II, and III combined with MAO could be used to obtain polybutadiene with relative mol. weight of 10,000-20,000 and cis-1,4-unit content of 62-78%. Polymerization of styrene with II- or III-MAO systems gave polystyrene with high syndiotacticity content.
IT **188405-00-7**
RL: CAT (Catalyst use); USES (Uses)
(lanthanocene-methylaluminoxane catalysts for polymerization of butadiene and isoprene and styrene)
RN 188405-00-7 HCAPLUS
CN Neodymium, chlorobis[(4a,4b,8a,9,9a-η)-9H-fluoren-9-yl]- (9CI) (CA INDEX NAME)

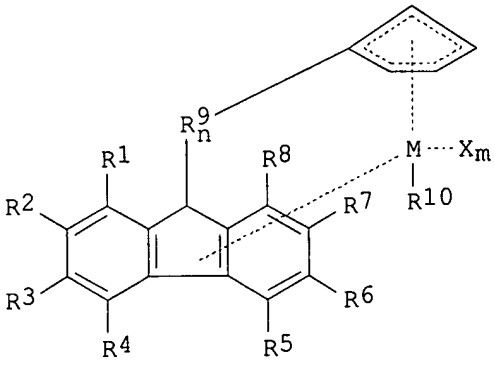


L70 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:999796 HCAPLUS
DN 124:88161
TI Organometallic catalysts containing cyclopentadienyl group-containing fluorene derivatives and their use for polymerization of vinyl monomers

IN Yasuda, Hajime; Ihara, Eiji; Tokimitsu, Tooru
PA Mitsubishi Rayon Co, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
FAN.CNT 1

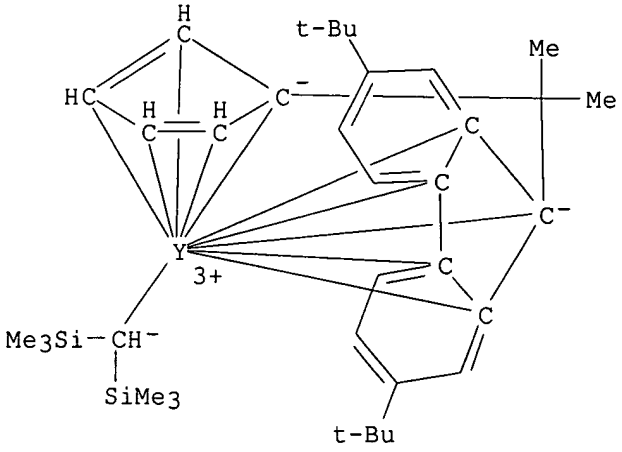
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07258319	A2	19951009	JP 1994-52217	19940323 <--

PRAI JP 1994-52217 19940323 <--
OS MARPAT 124:88161
GI



I

AB Compds. I [M = Sc, Y, lanthanide; R1-8 = H, (Si-containing) C1-5 hydrocarbyl; R9 = CR11R12, SiR11R12; R11, R12 = H, C1-3 alkyl, alkylsilyl; R10 = H, C1-10 hydrocarbyl, alkylsilyl; X = mol. of solvents; m = 0-3; n = 1-3] are prepared and used as catalysts for the polymerization of vinyl monomers.
Polymerization of 9.36 mmol Me methacrylate at 0° for 3 h in the presence of 0.10 mmol I [M = Y; R1, R3-6, R8 = H; R2, R7 = tert-Bu; R9 = CMe2; n = 1; R10 = (Me3Si)2CH; m = 0] [prepared from YCl3, 2,7-di-tert-butyl-9-(2-cyclopentadienyl-2-propyl)fluorene Li salt, and (Me3Si)2CHLi] gave a polymer with no-average mol. weight 512,000, mol. weight polydispersity 1.66, and good stereospecificity.
IT **172787-45-0P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(catalyst; preparation and use for polymerization of vinyl polymers)
RN 172787-45-0 HCAPLUS
CN Yttrium, [η10-[2,7-bis(1,1-dimethylethyl)-9H-fluoren-9-ylidene](1-methylethylidene)-2,4-cyclopentadien-1-ylidene][bis(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



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L71 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1067539 HCAPLUS
DN 143:347612
TI Preparation of styrene homopolymers and styrene-ethylene copolymers using lanthanide metallocene catalyst
IN **Carpentier, Jean-Francois; Kirillov, Evgueni; Razavi, Abbas**
PA Total Petrochemicals Research Feluy, Belg.; Centre National de la Recherche Scientifique CNRS
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1582536	A1	20051005	EP 2004-290847	20040331
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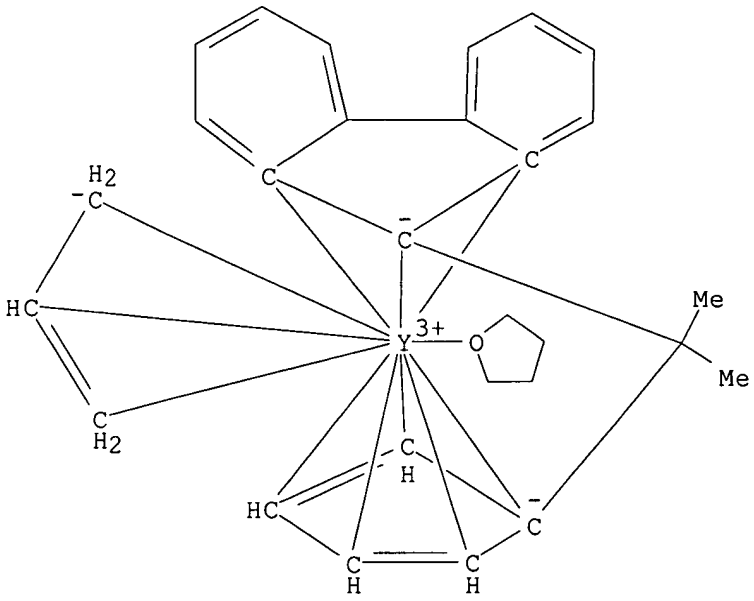
	WO 2005095470	A1	20051013	WO 2005-EP51369	20050324
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	EP 2004-290847	A	20040331		

OS MARPAT 143:347612
AB A catalyst system for the homo- or co-polymerization of styrene comprises a metallocene catalyst component of the general formula (Flu-R"-Cp)M(η3-C3R'5)(ether)n, wherein Cp is a cyclopentadienyl, substituted or unsubstituted, Flu is a fluorenyl, substituted or unsubstituted, M is a

metal Group III of the Periodic Table, ether is a donor solvent mol., R" is a structural bridge between Cp and Flu (9-position) imparting stereorigidity to the component, each R' is the same or different and is hydrogen or an hydrocarbyl having from 1 to 20 carbon atoms and n is 0, 1 or 2. Styrene-ethylene copolymer having a high styrene content was also prepared with the above catalyst.

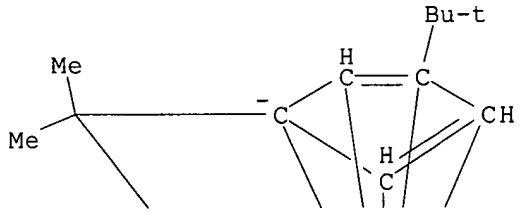
IT **786711-17-9P 866006-06-6P**
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of styrene homopolymers and styrene-ethylene copolymers using lanthanide metallocene catalyst)

RN 786711-17-9 HCAPLUS
CN Yttrium, [η8-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene](η3-2-propenyl)(tetrahydrofuran)- (9CI) (CA INDEX NAME)



RN 866006-06-6 HCAPLUS
CN Yttrium, [η10-[3-(1,1-dimethylethyl)-2,4-cyclopentadien-1-ylidene](1-methylethylidene)-9H-fluoren-9-ylidene](η3-2-propenyl)(tetrahydrofuran)- (9CI) (CA INDEX NAME)

PAGE 1-A



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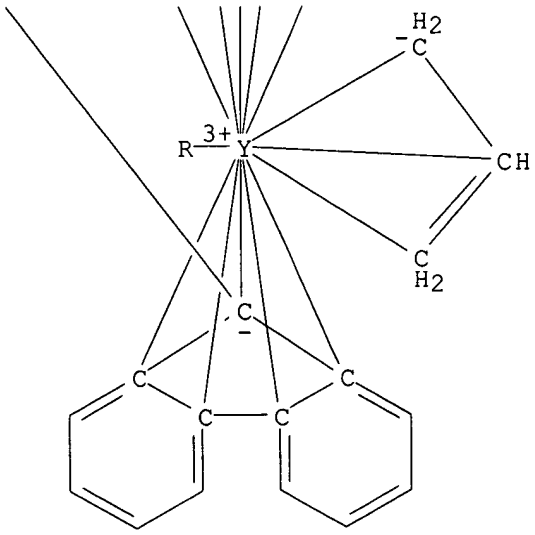

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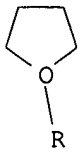
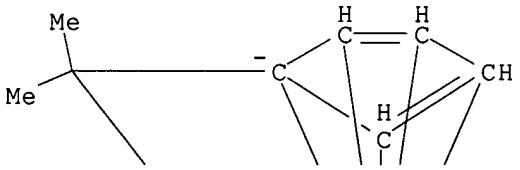


IT **866006-04-4P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of styrene homopolymers and styrene-ethylene copolymers using lanthanide metallocene catalyst)
RN 866006-04-4 HCAPLUS
CN Yttrium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene][(1,2,3-η)-2-methyl-2-propenyl](tetrahydrofuran)-(9CI) (CA INDEX NAME)

PAGE 1-A



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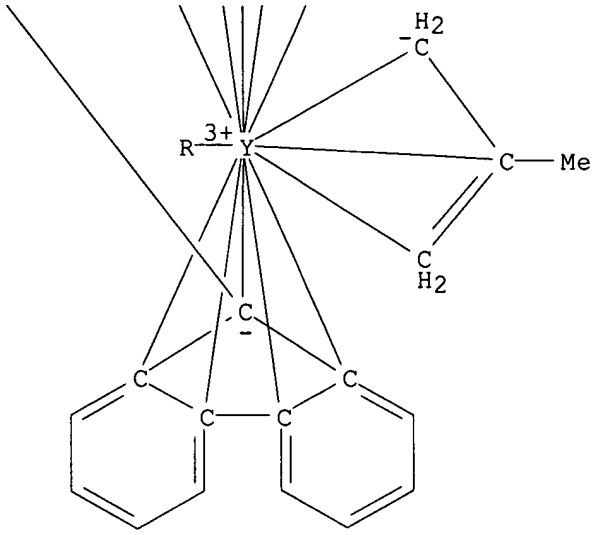
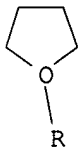
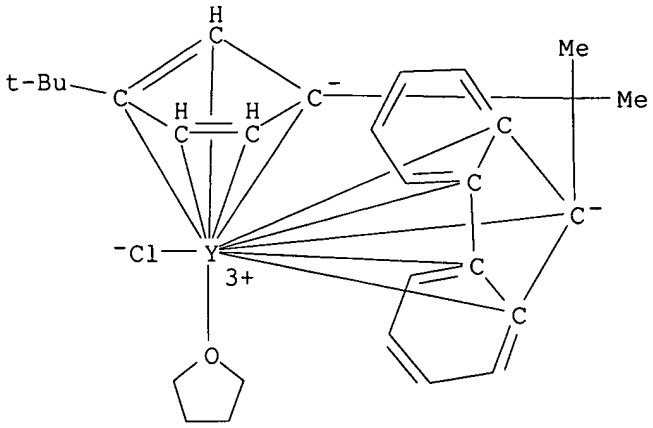


PAGE 3-A



IT **706760-93-2P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of styrene homopolymers and styrene-ethylene copolymers using lanthanide metallocene catalyst)
RN 706760-93-2 HCAPLUS
CN Yttrium, chloro[η10-[3-(1,1-dimethylethyl)-2,4-cyclopentadien-1-ylidene](1-methylethylidene)-9H-fluoren-9-ylidene](tetrahydrofuran)- (9CI) (CA INDEX NAME)



IT **611233-16-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of styrene homopolymers and styrene-ethylene copolymers using lanthanide metallocene catalyst)
RN 611233-16-0 HCAPLUS
CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, dichloro[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 611233-15-9
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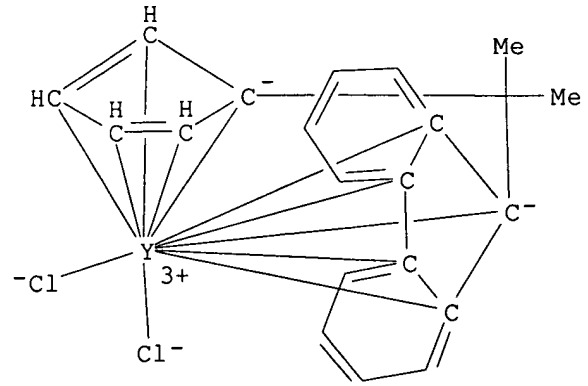
CCI CCS



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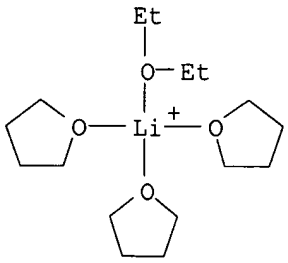
CCI CCS



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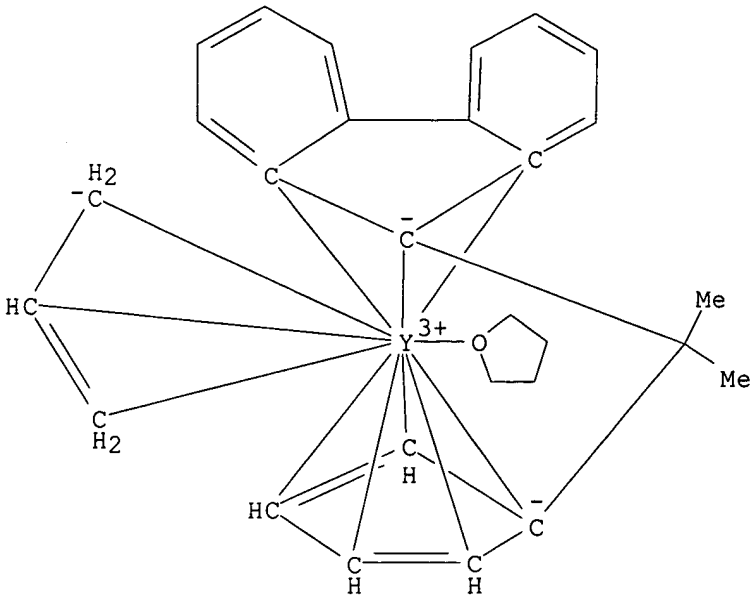
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1996	1996		PATENT ABSTRACTS OF	
Carpentier	2004			WO 2004060942 A	HCAPLUS
Ipsco Inc	1996			WO 9607861 A	
Lu, Z	1994	53	1453	J APPL POLYM SCI	HCAPLUS
Mitsubishi Rayon Co Ltd	1995			JP 07258319 A	HCAPLUS
Mitsubishi Rayon Co Ltd	1995			JP 7258319 A	
Sernetz	1997	35	1571	JOURNAL OF POLYMER S	HCAPLUS

L71 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:729326 HCAPLUS
DN 141:395882
TI Highly Syndiospecific Polymerization of Styrene Catalyzed by Allyl Lanthanide Complexes
AU **Kirillov, Evgueni**; Lehmann, Christian W.; **Razavi, Abbas**; **Carpentier, Jean-Francois**
CS Organometalliques et Catalyse, UMR 6509, Institut de Chimie de Rennes, CNRS-Universite de Rennes 1, Rennes, 35042, Fr.
SO Journal of the American Chemical Society (2004), 126(39), 12240-12241
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:395882
AB Allylic complexes of lanthanides bearing a fluorenyl-based ligand are active single-component catalysts for the polymerization of styrene, giving highly syndiotactic polymers (rrrr > 99%) with low to high mol. weight (Mn = 8000-135 000) and narrow polydispersities (Mw/Mn = 1.25-2.1).
IT **786711-17-9P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(highly syndiospecific polymerization of styrene catalyzed by allyl lanthanide complexes)
RN 786711-17-9 HCAPLUS
CN Yttrium, [η8-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene](η3-2-propenyl)(tetrahydrofuran)- (9CI) (CA INDEX NAME)



IT **611233-16-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(highly syndiospecific polymerization of styrene catalyzed by allyl lanthanide complexes)
RN 611233-16-0 HCAPLUS
CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, dichloro[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

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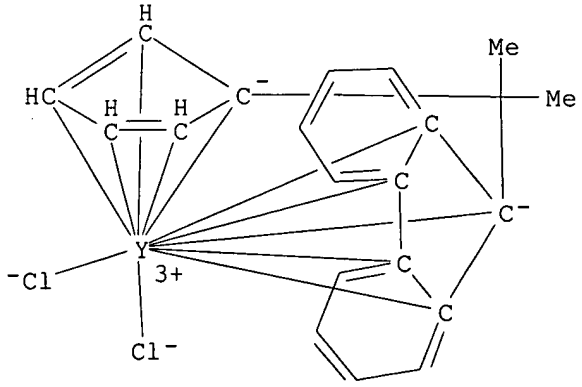

CM 2

CRN 444121-94-2

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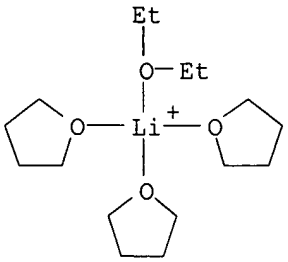

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Alt, H	2000	100	1205	Chem Rev	HCAPLUS
Baudry-Barbier, D	1999	13	813	Appl Organomet Chem	HCAPLUS
Bogaert, S	2000	201	1813	Macromol Chem Phys	HCAPLUS
Capacchione, C	2003	125	4964	J Am Chem Soc	HCAPLUS
Ewen, J	1988	110	6255	J Am Chem Soc	HCAPLUS
Hou, Z	2000	122	10533	J Am Chem Soc	HCAPLUS
Hultzsch, K	2000	19	228	Organometallics	HCAPLUS
Ishihara, N	1986	19	2464	Macromolecules	HCAPLUS
Ishihara, N	1988	21	3356	Macromolecules	HCAPLUS
Ishihara, N	2000		121	Progress and Develop	
Khvostov, A	1997	531	19	J Organomet Chem	
Kirillov, E	2003	22	4038	Organometallics	HCAPLUS
Kirillov, E	2004	23	2768	Organometallics	HCAPLUS
Knjazhanski, S	2002	21	3094	Organometallics	HCAPLUS
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Liguori, D	2003	36	5451	Macromolecules	HCAPLUS
Mahanthappa, M	2001	123	12093	J Am Chem Soc	HCAPLUS
Oliva, L	1989	22	1642	Macromolecules	HCAPLUS
Pellecchia, C	1995	117	6593	J Am Chem Soc	HCAPLUS
Pellecchia, C	1999	7	125	Top Catal	HCAPLUS
Po, R	1996	21	47	Prog Polym Sci	HCAPLUS
Shen, Z	1990	22	919	Polym J	
Tanaka, K	2001	39	1382	J Polym Sci, Part A:	HCAPLUS
Thomas, R	1986	108	4096	J Am Chem Soc	HCAPLUS
Tomotsu, N	1998	128	167	J Mol Catal A	HCAPLUS
Wang, Q	1996	15	693	Organometallics	HCAPLUS
Yokota, K	1999		435	Metalorganic Catalys	
Yuan, F	1997	538	241	J Organomet Chem	HCAPLUS
Zambelli, A	1989	22	2129	Macromolecules	HCAPLUS

L71 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:325442 HCAPLUS
DN 141:54425
TI Synthesis, Structure, and Polymerization Activity of Neutral Halide, Alkyl, and Hydrido Yttrium Complexes of Isopropylidene-Bridged Cyclopentadienyl-Fluorenyl Ligands
AU **Kirillov, Evgueni**; Lehmann, Christian W.; **Razavi, Abbas** ; **Carpentier, Jean-Francois**
CS Organometalliques et Catalyse, UMR 6509, Institut de Chimie de Rennes, CNRS-Universite de Rennes 1, Rennes, 35042, Fr.
SO Organometallics (2004), 23(11), 2768-2777

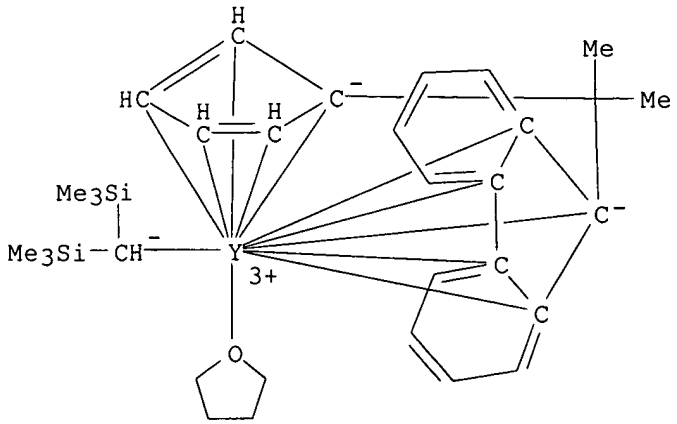
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:54425

AB Reactions of the anionic complex [(Cp-CMe2-Flu)YCl2]-[Li(ether)4]+ (1) (Cp = C5H4, Flu = 9-C13H8), prepared in situ from YCl3(THF)3.5 and 1 molar equivalent of the dilithium salt [Cp-CMe2-Flu]Li2, with equimolar amts. of RLi give alkyl mono-THF complexes [(Cp-CMe2-Flu)]Y(R)(THF) (R = CH(SiMe3)2, 3; CH2SiMe3, 4) in high yields. The solid-state structure of 3 was established by x-ray diffraction, showing the fluorenyl moiety sym. coordinated to yttrium in an intermediary η3-η5 mode. Hydrogenolysis of 3 and 4 with H2 or PhSiH3 gives the hydride {[(μ:η5,η5-Cp-CMe2-Flu)]Y(μ-H)(THF)}2 (5). The solid-state structure of 5 was determined by x-ray diffraction, revealing a dimeric structure with both bridging Cp-CMe2-Flu and hydride ligands (Y-H = 1.99(4)-2.01(4) Å). Complex 5 is the first structurally characterized example of a group 3 metal hydride stabilized by a fluorenyl ligand. Reaction of 1 with PhCH2MgBr gives, instead of a benzyl derivative, the neutral base-free bromo complex {[(η5,η5-Cp-CMe2-Flu)]Y(μ-Br)}2 (6), which shows a dimeric structure in the solid state with chelating Cp-CMe2-Flu and bridging bromide ligands. Introduction of the bulky tert-Bu substituent on the Cp ring of the ligand system enabled the preparation of the neutral chloro complex [(3-tBuCp)-CMe2-Flu]YCl(THF) (7), using a salt elimination between the dilithium salt of the ligand and YCl3(THF)3.5. Reaction of 7 with LiCH(SiMe3)2 gives the alkyl complex {[(3-tBuCp)-CMe2-Flu]Y(CH(SiMe3)2)} (8), which contains no THF mol. in its coordination sphere in contrast to unsubstituted analogs 3 and 4. Preliminary studies of the catalytic activity of these new complexes for ethylene and MMA polymerization are reported.

IT **706760-85-2P**
RL: CAT (Catalyst use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(crystal structure; preparation, structure, and polymerization catalytic activity of neutral halide, alkyl, and hydrido yttrium complexes of isopropylidene-bridged cyclopentadienyl-fluorenyl ligands)

RN 706760-85-2 HCAPLUS

CN Yttrium, [bis(trimethylsilyl)methyl][η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene](tetrahydrofuran)- (9CI) (CA INDEX NAME)



IT **706760-97-6P 708211-99-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(crystal structure; preparation, structure, and polymerization catalytic activity
of neutral halide, alkyl, and hydrido yttrium complexes of isopropylidene-bridged cyclopentadienyl-fluorenyl ligands)
RN 706760-97-6 HCAPLUS
CN Yttrium, bis[μ-[η5:η5-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]]di-μ-hydrobis(tetrahydrofuran)di-, compd. with benzene (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 706760-89-6
CMF C50 H54 O2 Y2
CCI CCS

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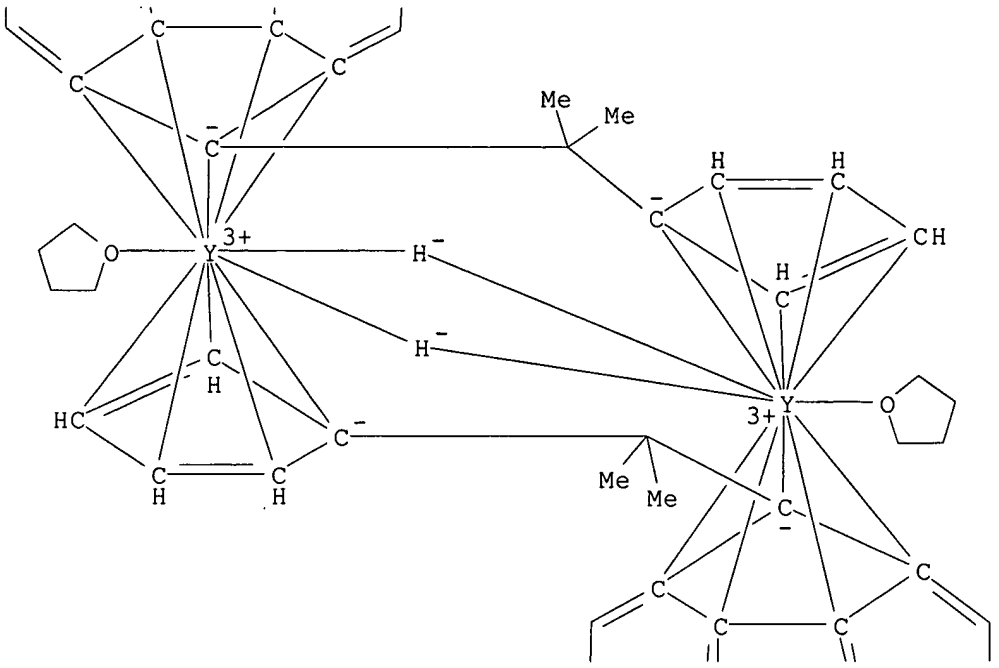

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CM 2

CRN 71-43-2
CMF C6 H6

RN 708211-99-8 HCAPLUS
CN Yttrium, di-μ-bromobis[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]di-, stereoisomer, compd. with methylbenzene (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 706760-91-0
CMF C42 H36 Br2 Y2
CCI CCS

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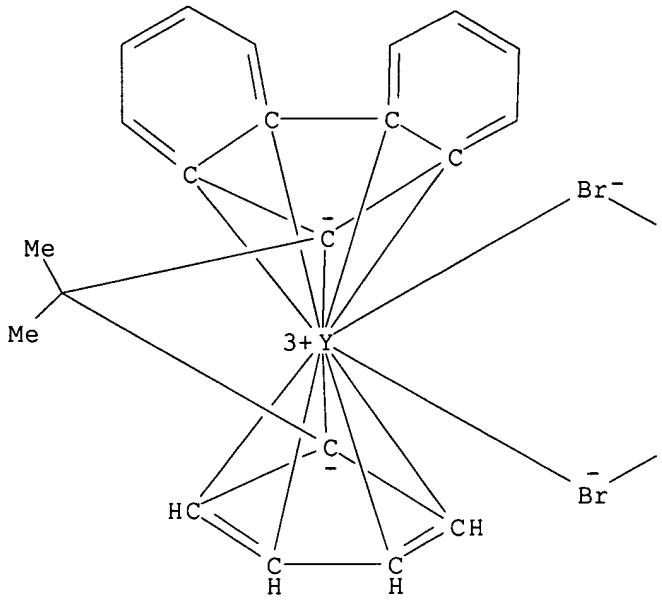

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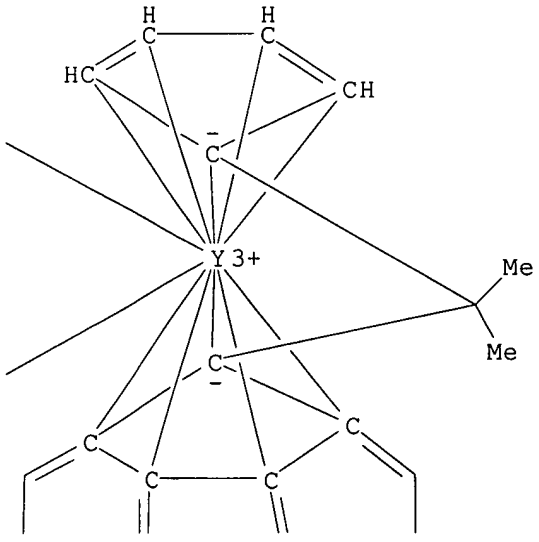

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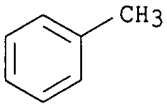
CM 2

CRN 108-88-3
CMF C7 H8



IT **706760-89-6P 706760-91-0P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(mol. structure; preparation, structure, and polymerization catalytic activity of
neutral halide, alkyl, and hydrido yttrium complexes of isopropylidene-bridged cyclopentadienyl-fluorenyl ligands)
RN 706760-89-6 HCAPLUS
CN Yttrium, bis[μ-[η5:η5-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]]di-μ-hydrobis(tetrahydrofuran)di- (9CI) (CA INDEX NAME)

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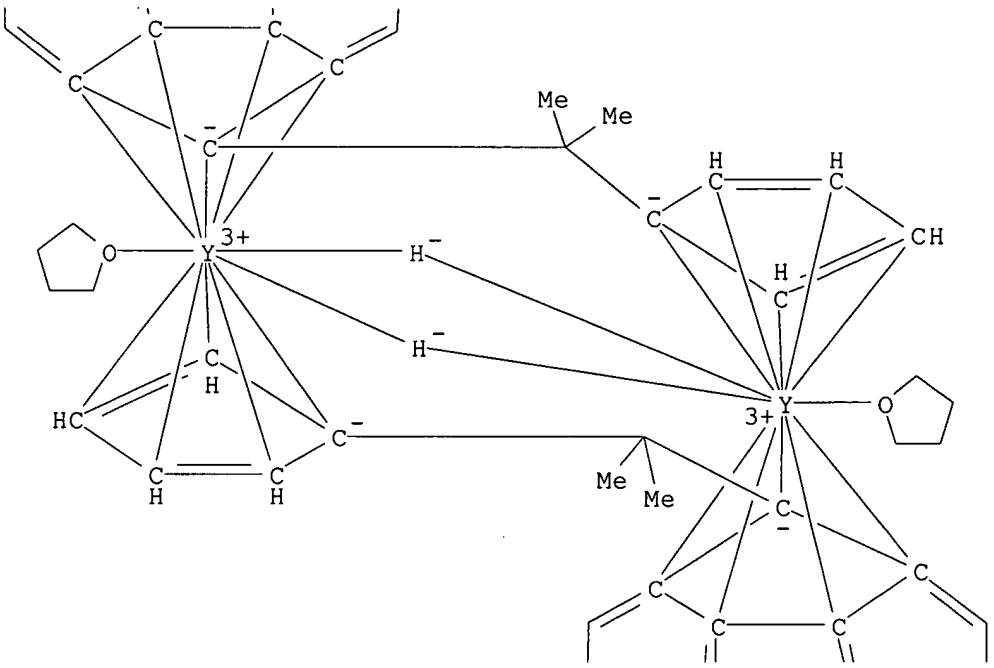

PAGE 3-A

RN 706760-91-0 HCAPLUS
CN Yttrium, di-μ-bromobis[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]di-, stereoisomer (9CI) (CA INDEX NAME)

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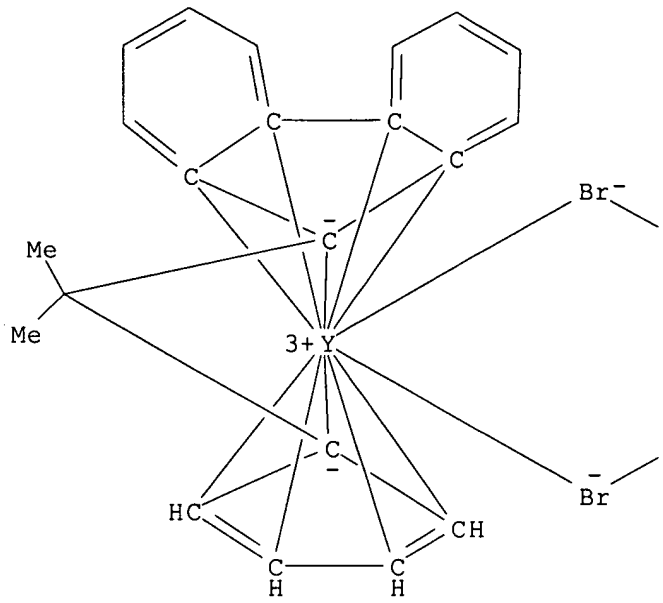

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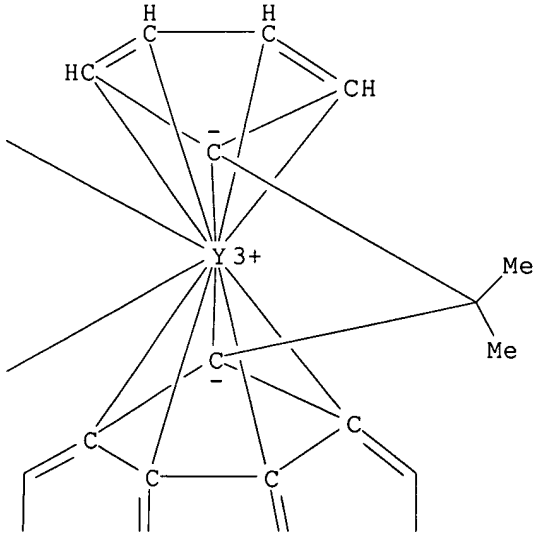

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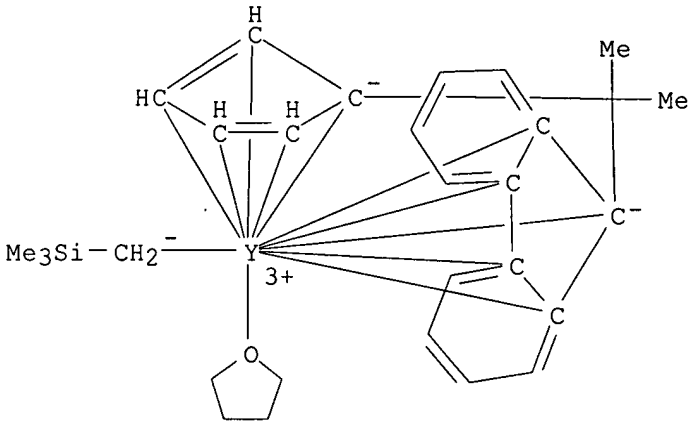
IT **706760-87-4P**
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation, structure, and polymerization catalytic activity of neutral halide,
alkyl, and hydrido yttrium complexes of isopropylidene-bridged cyclopentadienyl-fluorenyl ligands)
RN 706760-87-4 HCAPLUS
CN Yttrium, [η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene](tetrahydrofuran)[(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



IT **611233-16-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation, structure, and polymerization catalytic activity of neutral halide,
alkyl, and hydrido yttrium complexes of isopropylidene-bridged cyclopentadienyl-fluorenyl ligands)
RN 611233-16-0 HCAPLUS
CN Lithium(1+), [1,1'-oxybis[ethane]]tris(tetrahydrofuran)-, (T-4)-, dichloro[η10-2,4-cyclopentadien-1-ylidene(1-methylethylidene)-9H-fluoren-9-ylidene]yttrate(1-) (9CI) (CA INDEX NAME)

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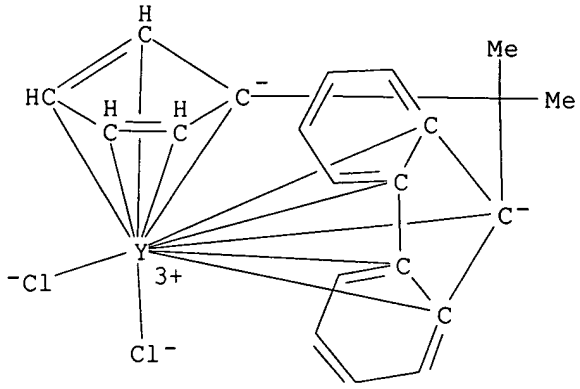
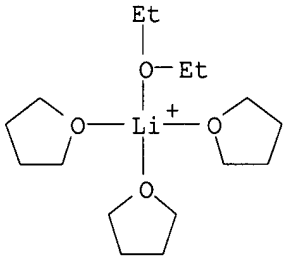
CRN 611233-15-9
CMF C21 H18 Cl2 Y
CCI CCS

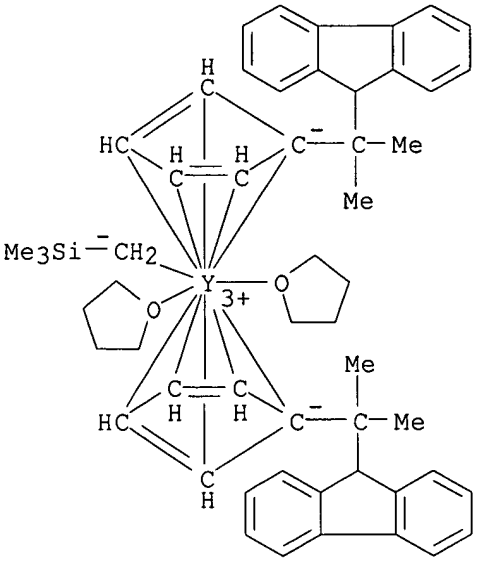


CM 2

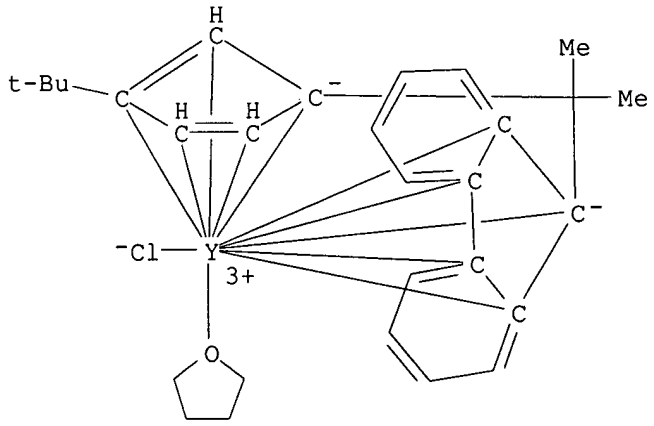
CRN 444121-94-2
CMF C16 H34 Li O4
CCI CCS



IT **706760-83-0P 706760-93-2P 706760-95-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, structure, and polymerization catalytic activity of neutral halide,
alkyl, and hydrido yttrium complexes of isopropylidene-bridged cyclopentadienyl-fluorenyl ligands)
RN 706760-83-0 HCAPLUS
CN Yttrium, bis[(1,2,3,4,5-η)-1-[1-(9H-fluoren-9-yl)-1-methylethyl]-2,4-cyclopentadien-1-yl]bis(tetrahydrofuran)[(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



RN 706760-93-2 HCAPLUS
CN Yttrium, chloro[η10-[3-(1,1-dimethylethyl)-2,4-cyclopentadien-1-ylidene](1-methylethylidene)-9H-fluoren-9-ylidene](tetrahydrofuran)- (9CI) (CA INDEX NAME)



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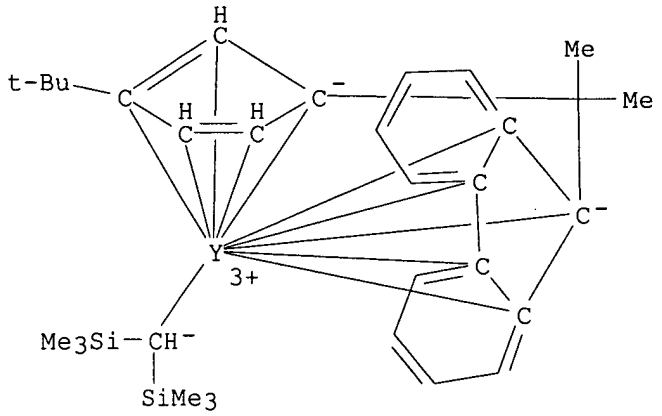
CN Yttrium, [bis(trimethylsilyl)methyl][η10-[3-(1,1-dimethylethyl)-2,4-cyclopentadien-1-ylidene](1-methylethylidene)-9H-fluoren-9-ylidene]- (9CI) (CA INDEX NAME)



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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Akhnoukh, T	1991	408	47	J Organomet Chem	HCAPLUS
Alt, H	2000	100	1205	Chem Rev	HCAPLUS
Anwander, R	1999	2	1	Top Organomet Chem	HCAPLUS
Bochkarev, M	1995			Organoderivatives of	
Bochmann, M	1993	12	4718	Organometallics	HCAPLUS
Boisson, C	2000		75	Progress and Develop	
Chernega, A	1993	20	3031	J Chem Soc, Dalton T	
Coughlin, E	1996	242	205	Inorg Chim Acta	HCAPLUS
Coughlin, E	1996	242	205	Inorg Chim Acta	HCAPLUS
Dash, A	2002	21	3238	Organometallics	HCAPLUS
Den Haan, K	1987	323	181	J Organomet Chem	HCAPLUS
Desurmont, G	2000	19	1811	Organometallics	HCAPLUS
Drago, D	2000	19	1802	Organometallics	HCAPLUS
Edelmann, F	1995	4	11	Comprehensive Organo	
Ephritikhine, M	1997	97	2193	Chem Rev	HCAPLUS
Eppinger, J	2000	122	3080	J Am Chem Soc	HCAPLUS
Evans, W	1982	104	2008	J Am Chem Soc	HCAPLUS
Even, J	1988	110	6256	J Am Chem Soc	
Forschner, T	1989	111	7420	J Am Chem Soc	HCAPLUS
Forsyth, C	1991	10	2543	Organometallics	HCAPLUS
Fryzuk, M	2001	20	1387	Organometallics	HCAPLUS
Fu, P	1995	117	7157	J Am Chem Soc	HCAPLUS
Giardello, M	1994	116	10212	J Am Chem Soc	HCAPLUS
Hayes, P	2001	20	2533	Organometallics	HCAPLUS
Hermann, W	1988	358	321	J Organomet Chem	
Hessen, B	1988	110	4860	J Am Chem Soc	HCAPLUS
Hultzsch, K	1999	38	227	Angew Chem, Int Ed	HCAPLUS
Hultzsch, K	2000	19	228	Organometallics	HCAPLUS
Karsch, H	1998		1403	Eur J Inorg Chem	HCAPLUS
Kirillov, E	2004		943	Eur J Inorg Chem	HCAPLUS
Kirillov, E	2003	22	4038	Organometallics	HCAPLUS
Kirillov, E	2003	22	4467	Organometallics	HCAPLUS
Larson, E	1987	6	2141	Organometallics	HCAPLUS
Larson, E	1988	7	1183	Organometallics	HCAPLUS
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Lindsay, C	1990	9	2594	Organometallics	HCAPLUS
Neumueller, B	1992	612	123	Z Anorg Allg Chem	HCAPLUS
Nie, W	2002	21	3238	J Organomet Chem	

Qian, C	1999		3283	J Chem Soc, Dalton T	HCAPLUS
Qian, C	2002	645	82	J Organomet Chem	HCAPLUS
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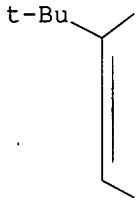
Qiao, K	1993	456	185	J Organomet Chem	HCAPLUS
Qiao, K	1990	9	1361	Organometallics	HCAPLUS
Razavi, A	1992	435	299	J Organomet Chem	HCAPLUS
Razavi, A	2001	621	267	J Organomet Chem	HCAPLUS
Schaverien, C	1994	36	283	Adv Organomet Chem	HCAPLUS
Schumann, H	1995	95	865	Chem Rev	HCAPLUS
Schumann, H	1995	95	865	Chem Rev	HCAPLUS
Sheldrick, G	1997			SHELXL-97, Program f	
Sheldrick, G	1997			SHELXS-97, Program f	
Slejko, F	1972	94	9210	J Am Chem Soc	HCAPLUS
Stern, D	1990	112	9558	J Am Chem Soc	HCAPLUS
Stoutland, P	1988	110	5732	J Am Chem Soc	HCAPLUS
Trifonov, A	2001	20	4869	Organometallics	HCAPLUS
Trifonov, A	2001	20	4869	Organometallics	HCAPLUS
Voth, P	2003	22	3921	Organometallics	HCAPLUS
Werner, B	1995	621	346	Z Anorg Allg Chem	HCAPLUS

L71 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:245892 HCAPLUS
DN 141:157248
TI [η5:η1-(3,6-tBu2Flu)SiMe2NtBu]Y(η1-NC5H6)(py)2: a 1,4-hydride-addition product to pyridine that provides evidence for the first fluorenyl(hydrido)metal (Group 3) complex
AU **Kirillov, Evgueni**; Lehmann, Christian W.; **Razavi, Abbas**; **Carpentier, Jean-Francois**
CS Organometalliques et Catalyse, Institut de Chimie de Rennes, UMR 6509 CNRS-Universite de Rennes 1, Rennes, 35042, Fr.
SO European Journal of Inorganic Chemistry (2004), (5), 943-945
CODEN: EJICFO; ISSN: 1434-1948
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 141:157248
AB Reaction of pyridine with the constrained geometry fluorenyl(hydrido)yttrium complex {[(3,6-tBu2Flu)SiMe2NtBu]Y(H)(THF)}2 selectively gives the 1,4-addition product [η5:η1-(3,6-tBu2Flu)SiMe2NtBu]Y(η1-NC5H6)(py)2, which was characterized by single-crystal x-ray diffraction and 1H and 13C NMR spectroscopy.
IT **624739-61-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and crystal structure of 1,4-hydride-addition product of pyridine with yttrium hydrido fluorenyl complex)
RN 624739-61-3 HCAPLUS
CN Yttrium, bis[1-[(4a,4b,8a,9,9a-η)-3,6-bis(1,1-dimethylethyl)-9H-fluoren-9-yl]-N-(1,1-dimethylethyl)-1,1-dimethylsilanaminato(2-)-κN]di-μ-hydrobis(tetrahydrofuran)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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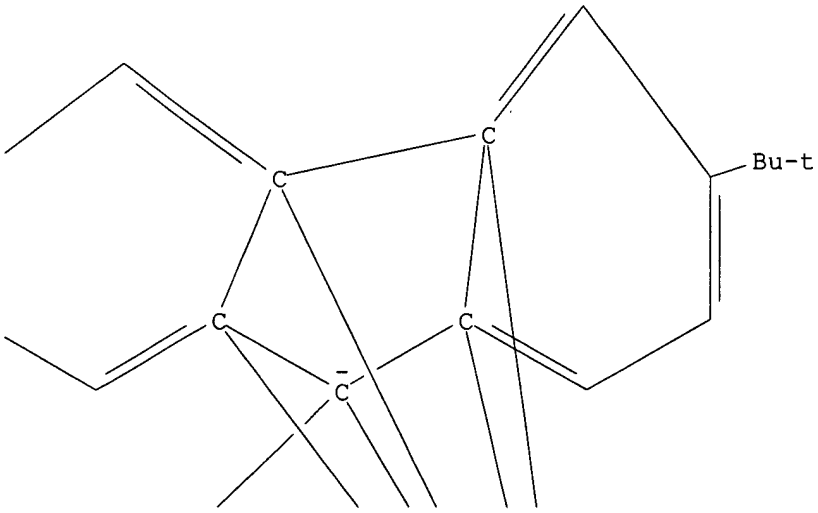

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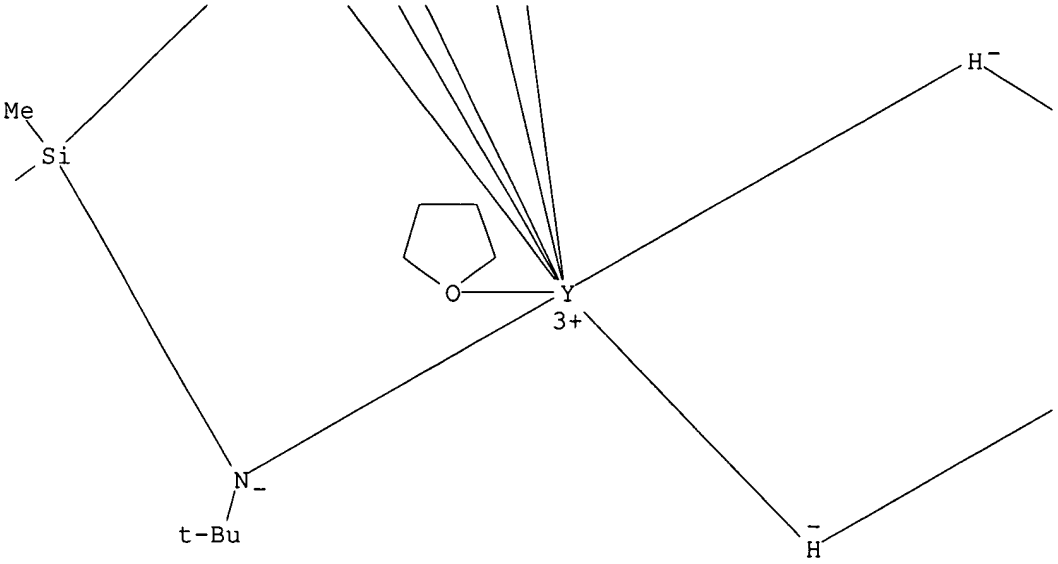
PAGE 2-B



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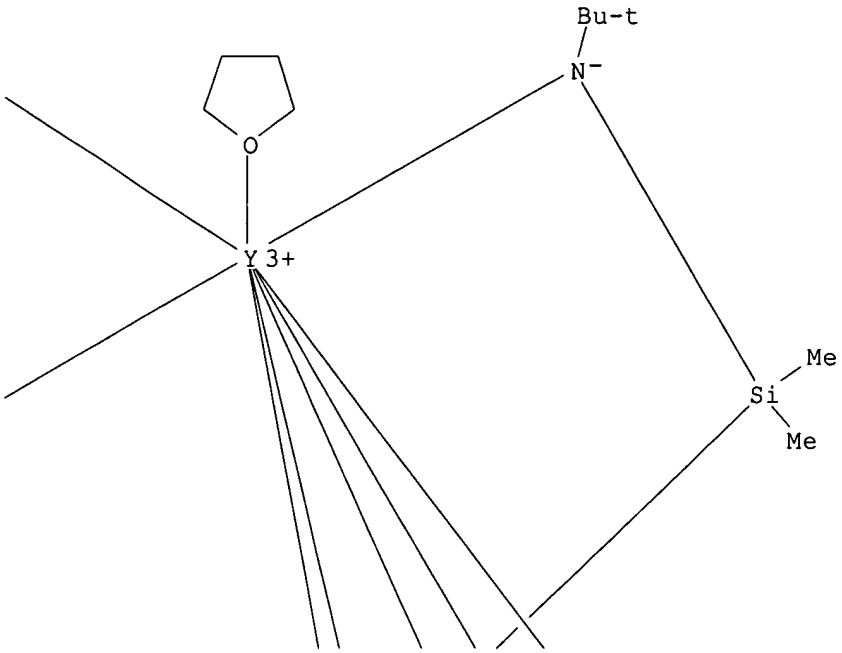

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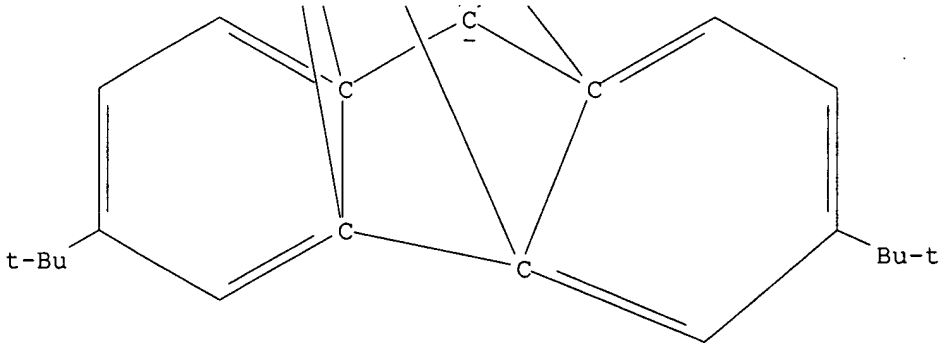
PAGE 3-C



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Arndt, S	2000	19	4690	Organometallics	HCAPLUS
Deelman, B	1994	13	3881	Organometallics	HCAPLUS
Duchateau, R	1996	15	2291	Organometallics	HCAPLUS
Ephritikhine, M	1997	97	2193	Chem Rev	HCAPLUS
Evans, W	1984	106	1291	J Am Chem Soc	HCAPLUS
Gamer, M	2001	20	4230	Organometallics	HCAPLUS

Gountchev, T	1999	18	2896	Organometallics	HCAPLUS
Hensen, K	1999	38	4700	Inorg Chem	HCAPLUS
Hultzsch, K	1999	111	163	Angew Chem	
Hultzsch, K	1999	38	227	Angew Chem Int Ed	HCAPLUS
Hultzsch, K	2000	19	228	Organometallics	HCAPLUS
Joule, J	1972			Heterocyclic Chemist	
Kirillov, E	2003	22	4038	Organometallics	HCAPLUS
Kirillov, E	2003	22	4467	Organometallics	HCAPLUS
Lee, L	1994	33	5302	Inorg Chem	HCAPLUS
Lee, M	1999	18	5124	Organometallics	HCAPLUS
Mu, Y	1995	73	2233	Can Chem J	HCAPLUS
Qian, C	2000	19	4134	Organometallics	HCAPLUS
Sheldrick, G	1997			SHELXS-97 and SHELXS	
Spek, A	1982	11	1621	Cryst Struct Commun	HCAPLUS
Thompson, M	1987	109	203	J Am Chem Soc	HCAPLUS
Trifonov, A	2001	20	4869	Organometallics	HCAPLUS
Voth, P	2003	22	65	Organometallics	HCAPLUS
Watson, P	1983		276	J Chem Soc, Chem Com	HCAPLUS

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